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POLYCHAETE WORMS

BY

C. C. A. MONRO, M.A.

CONTENTS

Introduction . . . . page 3

Summary of Results
- Systematic 5
- Geographical Distribution 9
- Bathymetrical Distribution 18
- Ecological 21

Systematic Account
- Amphinomidae 27
- Aphroditidae 36
- Polynoidae 40
- Acoetidae 69
- Sigalionidae 70
- Phyllodocidae 71
- Alciopidae 79
- Tomopteridae 84
- Typhloscolecidae 89
- Hesionidae 91
- Syllidae 92
- Nereidae 103
- Nephthydidae 111
- Sphaerodoridae 115
- Glyceridae 115
- Eunicidae 118
- Eunicinae 118
- Onuphidinae 124
- Lumbriconereinae 135
- Staurocephalinae 143
- Ariciidae 144
- Spionidae 146

Systematic Account (*cont.*)
- Paraonidae . . . . page 150
- Chaetopteridae 152
- Cirratulidae 154
- Flabelligeridae 159
- Scalibregmidae 163
- Capitellidae 163
- Opheliidae 165
- Maldanidae 169
- Oweniidae 176
- Sabellariidae 176
- Sternaspidae 178
- Amphictenidae 180
- Ampharetidae 180
- Terebellidae 185
- Amphitritinae 185
- Artacaminae 191
- Thelepinae 192
- Polycirrinae 194
- Canephorinae 198
- Sabellidae 199
- Sabellinae 199
- Fabriciinae 203
- Serpulidae 206
- Serpulinae 206
- Filograninae 213
- Spirorbinae 214

List of literature cited 215

Index 218

x 78
v.2, p.1-222

POLYCHAETE WORMS

By C. C. A. Monro, M.A.[1]

(Text-figures 1–91)

INTRODUCTION

The Polychaeta studied in this report were all collected by the staff of the Discovery Investigations in the R.R.S. 'Discovery,' in the R.S.S. 'William Scoresby,' in the Floating Whaling Factory S.S. 'Anglo-Norse' off the South Sandwich Islands, and by the personnel of the Marine Biological Station at South Georgia and at Saldanha Bay, South Africa. A few specimens were also procured by a member of the staff in a trawler off the Cape of Good Hope.

The stations made by the 'Discovery' have no letters prefixed to the numbers: those of the 'William Scoresby' have the prefix WS, those of the S.S. 'Anglo-Norse' SS (for South Sandwich), and those of the Marine Biological Station MS.

The following summary of stations, taken from the Station List published by the Discovery Investigations, gives the courses sailed by the 'Discovery' and the 'William Scoresby.'

'*Discovery*.' Stations 1–2, Ascension Island; 3, Mid South Atlantic; 4–6, Tristan da Cunha; 7–12, Tristan da Cunha to South Georgia; 13–45, off South Georgia; 46–47, South Georgia to Falkland Islands; 48–58, off Falkland Islands; 59–89, Falkland Islands to Cape Town; 90–101, off South-west Africa; 102–116, South Africa to Bouvet Island; 117–121, Bouvet Island to South Georgia; 122–159, off South Georgia; 160–161, South Georgia to South Orkneys; 162–167, off South Orkneys; 168–170, South Orkneys to South Shetlands; 171–177, Bransfield Strait, South Shetlands; 178–192, Palmer Archipelago; 193–209, Bransfield Strait, South Shetlands; 210–221, Drake Strait; 222–230, Cape Horn to Falkland Islands; 231–259, Falkland Islands to Cape Town; 260–265, off South-west Africa; 266–299, Cape Town to Cape Verde Islands.

'*William Scoresby*.' Stations WS 1–4, off South-west Africa; WS 5–17, Cape Town to South Georgia; WS 18–65, off South Georgia; WS 66–70, South Georgia to Falkland Islands; WS 71–99, off Falkland Islands and between Falkland Islands and South America; WS 100–107, Falkland Islands to Port Desire, South America; WS 108–109, North of Falkland Islands; WS 110–114, off South Georgia; WS 115–121, South Georgia to Gough Island; WS 122–130, off Gough Island; WS 131–136, Gough Island to Cape Town.

The Marine Biological Station made seventy-four stations at South Georgia and eight stations at South Africa. The location of the SS stations has already been given.

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GEAR

In the station lists the following symbols represent the various kinds of gear used:

B	Oblique.
H	Horizontal.
V	Vertical.
BTS	Small beam trawl. Beam 8 ft. in length (2·45 m.): mesh at cod-end ½ in. (12·5 mm.).
DC	Conical dredge. Mouth 16 in. in diameter (40·5 cm.), with canvas bag.
DL	Large dredge. Light pattern, 4 ft. in length (1·2 m.).
DLH	Large dredge. Heavy pattern, 4 ft. in length (1·2 m.).
DS	Small dredge. 2 ft. in length (0·6 m.).
LH	Hand lines.
N 4–T N 7–T	Nets with mesh of 4 mm. or 7 mm. (0·16 in. or 0·28 in.) attached to back of trawl.
N 50	50 cm. tow-net. Mouth circular, 50 cm. in diameter (19·5 in.): 200 meshes to the linear inch.
N 70	70 cm. tow-net. Mouth circular, 70 cm. in diameter (27·5 in.): mesh graded, at cod-end 74 to the linear inch.
N 100	1 m. tow-net. Mouth circular, 1 m. in diameter (3·3 ft.): mesh graded, at cod-end 16 to the linear inch. From July 1, 1927, this net was replaced by another, of similar pattern, but with the cod-end made of stramin with 11–12 meshes to the linear inch.
N 450	4½ m. tow-net. Mouth circular, 4½ m. in diameter (14·8 ft.): mesh graded, at cod-end 7 mm. (0·28 in.).
NC 50	Coarse 50 cm. tow-net. Mouth circular, 50 cm. in diameter (19·5 in.): 25 meshes to the linear inch.
NCS–N NCS–T	Tow-net of coarse silk, with 16 meshes to the linear inch, attached to trawl or other net.
NH	Hand net.
NRL	Large rectangular net. Frame 8 ft. long and 2¼ ft. wide (2·45 m. × 0·7 m.) with bag of ½ in. mesh (12·5 mm.).
NRM	Medium rectangular net. Frame 4 ft. long and 1¼ ft. wide (1·22 m. × 0·38 m.) with bag of 7 mm. mesh (0·28 in.).
OTC	Commercial otter trawl. Head rope 80 ft. long (24·5 m.): mesh at cod-end 1½ in. (3·8 cm.).
OTL	Large otter trawl. Head rope 40 ft. long (12·2 m.): mesh at cod-end 1¼ in. (3·2 cm.).
OTM	Medium otter trawl. Head rope 30 ft. long (9·14 m.): mesh at cod-end 1¼ in. (3·2 cm.).
RM	Mussel rake.
TYF	Young fish trawl. Mouth about 20 ft. in circumference (6 m.): bag of stramin with 11–12 meshes to linear inch. Fished until July 1926 with poles and otter-boards, thereafter attached to a circular tow-net frame 2 m. in diameter (6·6 ft.).

Table I shows the number of times each gear was used in procuring the present collection, and the number of species and specimens caught by each gear.

TABLE I

Gear	Times used	No. of species caught	No. of specimens caught
BTS	79	42	320
DC	18	15	109
DL	32	35	256
DLH	172	91	1061
DS	7	8	32
LH	6	6	17
N 4–T	35	29	230
N 7–T	10	10	36
N 50	1	2	2
N 70	6	14	56
N 100	20	16	127
N 450	3	3	3
NC 50	3	3	8
NCS–N	2	1	8
NCS–T	17	16	73
NH	17	13	71
NRL	42	35	143
NRM	4	6	45
OTC	105	31	388
OTL	179	91	1001
OTM	13	13	41
RM	23	19	276
TYF	43	19	62

SUMMARY OF RESULTS

SYSTEMATIC

There follows a list of species.

Benthic species

Family AMPHINOMIDAE

Hermodice carunculata (Pallas), var. *didymobranchiata* (Baird).
Eurythoë complanata (Pallas).
Eurythoë chilensis, Kinberg.
Chloeia viridis, Schmarda.
Notopygos megalops, McIntosh.
Amphinome vagans (Savigny).
Paramphinome australis, n.sp.
Euphrosyne capensis, Kinberg.
Euphrosyne arctia, Johnson.

Family APHRODITIDAE

Aphrodite alta, Kinberg.
Laetmonice producta, Grube.

Family POLYNOIDAE

Hermadion ferox, Baird.
Hermadion magalhaensi, Kinberg.
Malmgrenia micropoides, Augener.
Euphione elisabethae, McIntosh.
Scalisetosus pellucidus (Ehlers).
Lepidonotus semitectus, Stimpson.
Eulagisca corrientis, McIntosh.
Eunoë opalina, McIntosh.
Eucrantha mollis (McIntosh).
Polyeunoa laevis, McIntosh.
Polynoë antarctica Kinberg.
Harmothoë magellanica (McIntosh).
Harmothoë spinosa, Kinberg.
Harmothoë exanthema (Grube).
Harmothoë anderssoni, Bergström.
Harmothoë crosetensis (McIntosh).
Harmothoë* (*Evarnella*) *impar (Johnston), var. ***notialis***, var. nov.
Harmothoë (*Evarnella*) *kerguelensis* (McIntosh).
Harmothoë (*Barrukia*) *cristata* (Willey).
Harmothoë* (*Barrukia*) *curviseta, n.sp.
Antinoë setobarba, n.sp.
Antinoë antarctica (Bergström).
Antinoë epitoca, n.sp.

Family ACOETIDAE

Eupanthalis tubifex (Ehlers).
Polyodontes mortenseni, Monro.

Family SIGALIONIDAE

Euthalanessa dendrolepis (Claparède).
Leanira incisa, Grube.

Family PHYLLODOCIDAE

Eteone sculpta, Ehlers.
Eteone aurantiaca, Schmarda.
Eteone rubella, Ehlers.
Phyllodoce patagonica, Kinberg.
Phyllodoce (*Anaitis*) *bowersi*, Benham.
Phyllodoce oculata, Ehlers.
Phyllodoce longipes, Kinberg.
Austrophyllum charcoti (Gravier).
Genetyllis polyphylla (Ehlers).
Eulalia magalhaensis, Kinberg.
Eulalia viridis (O. F. Müller).
Eulalia anomalochaeta, n.sp.
Eulalia subulifera (Ehlers).
Eulalia picta, Kinberg.

Family HESIONIDAE

Orseis sp.
Leocrates diplognathus, Monro.

Family SYLLIDAE

Pionosyllis comosa, Gravier.
Pionosyllis maxima, n.sp.
Eusyllis kerguelensis, McIntosh.
Trypanosyllis gigantea (McIntosh).
Trypanosyllis gemmulifera, Augener.
Autolytus charcoti, Gravier.
Autolytus gibber, Ehlers.
Autolytus simplex, Ehlers.
Autolytus (*Sacconereis*) sp.
Grubea clavata (Claparède).
Syllis prolixa, Ehlers.
Syllis brachychaeta, Schmarda.
Syllis brachycola, Ehlers.
Syllis variegata, Grube.
Syllis sclerolaema, Ehlers.

Family NEREIDAE

Nereis kerguelensis, McIntosh.
Nereis callaona, Grube.
Nereis eugeniae (Kinberg).
Nereis typhla, n.sp.
Nereis pelagica, L.
Platynereis magalhaensis, Kinberg.
Platynereis dumerilii (Milne-Edwards).
Leptonereis loxechini, Kinberg.
Nereis (Eunereis) hardyi, n.sp.
Ceratonereis vittata, Langerhans.

Family NEPHTHYDIDAE

Nephthys macrura, Schmarda.
Nephthys lyrochaeta, Fauvel.
Nephthys serratifolia, Ehlers.

Family SPHAERODORIDAE

Ephesia antarctica, McIntosh.

Family GLYCERIDAE

Glycera capitata, Oersted.
Glycera tesselata, Grube.
Glycera convoluta, Keferstein.
Goniada congoensis, Grube.

Family EUNICIDAE

Eunice pennata (O. F. Müller).
Eunice siciliensis, Grube.
Eunice vittata (Delle Chiaje).
Eunice longicirrata, Webster.
Eunice rousseaui, Quatrefages.
Eunice murrayi, McIntosh.
Nicidion kinbergii, Webster.
Nicidion edentulum, Ehlers.
Diopatra cuprea (Bosc).
Diopatra punctifera, Ehlers.
Epidiopatra hupferiana, Augener.
Rhamphobrachium ehlersi, n.sp.
Onuphis eremita, Audouin and Milne-Edwards.
Onuphis notialis, n.sp.
Onuphis quadricuspis, M. Sars.
Onuphis iridescens (Johnson).
Leptoecia antarctica, n.sp.
Lumbrinereis magalhaensis, Kinberg.
Lumbrinereis africana, Augener.
Lumbrinereis coccinea, Renieri.
Lumbrinereis heteropoda, Marenzeller.
Lumbrinereis tetraura, Schmarda.
Lumbrinereis antarctica, n.sp.
Augeneria tentaculata, gen. et sp. nov.
Arabella iricolor (Montagu).
Drilonereis filum (Claparède).
Drilonereis sp.
Staurocephalus neglectus, Fauvel.
Staurocephalus rubrovittatus, Grube.

Family ARICIIDAE

Aricia marginata, Ehlers.
Aricia michaelseni, Ehlers.
Nainereis hexaphyllum (Schmarda).
Scoloplos mawsoni, Benham.
Scoloplos armiger (O. F. Müller).

Family SPIONIDAE

Pygospio dubia, n.sp.
Nerine sp.
Prionospio africana, Augener.

Family PARAONIDAE

Paraonis (*Paraonides*) *gracilis* (Tauber).

Family CHAETOPTERIDAE

Chaetopterus variopedatus (Renier).
Phyllochaetopterus socialis, Claparède.
Phyllochaetopterus sp.

Family CIRRATULIDAE

Audouinia filigera (Delle Chiaje), var. *capensis* (Schmarda).
Cirratulus cirratus (O. F. Müller).
Cirratulus antarcticus, n.sp.
Cirratulus afer, Ehlers.
Dodecaceria concharum, Oersted.
Heterocirrus caput-esocis, Saint Joseph, var ***capensis***, var. nov.
Tharyx epitoca, n.sp.
Tharyx sp.

Family FLABELLIGERIDAE

Stylarioides kerguelarum (Grube).
Stylarioides swakopianus, Augener.
Flabelligera affinis, M. Sars.
Flabelligera luctator, Stimpson.
Flabelligera pennigera, Ehlers.
Flabelligera mundata, Gravier.
Brada villosa (Rathke).
Brada mammillata, Grube.
Pycnoderma congoense, Grube.

Family SCALIBREGMIDAE

Scalibregma inflatum, Rathke.

Family CAPITELLIDAE

Capitella capitata (Fabricius).
Capitella capitata (Fabricius), var. ***antarctica***, var. nov.
Notomastus latericeus, M. Sars.
Notomastus lineatus, Claparède.

Family OPHELIIDAE

Ammotrypane breviata, Ehlers.
Travisia olens, Ehlers.
Travisia kerguelensis, McIntosh.
Travisia kerguelensis, McIntosh, var. ***gravieri,*** var. nov.
Kesun abyssorum, n.sp.

Family MALDANIDAE

Maldane decorata, Grube.
Maldane sarsi, Malmgren, var. *antarctica*, Arwidsson.
Rhodine intermedia, Arwidsson.
Lumbriclymenella robusta, Arwidsson.
Clymenella minor, Arwidsson.
Clymene kerguelensis (McIntosh).
Clymene (*Isocirrus*) *yungi* (Gravier).
Asychis amphiglypta (Ehlers).
Nicomache lumbricalis (Fabricius).
Nicomache sp.
Axiothella antarctica, n.sp.

Family OWENIIDAE

Owenia fusiformis, Delle Chiaje.

Family SABELLARIIDAE

Gunnarea capensis (Schmarda).
Idanthyrsus armatus, Kinberg.
Idanthyrsus pennatus (Peters).

Family STERNASPIDAE

Sternaspis scutata (Ranzani).
Sternaspis scutata (Ranzani), var. *africana*, Augener.

Family AMPHICTENIDAE

Pectinaria sp.

Family AMPHARETIDAE

Amage sculpta, Ehlers.
Melinna cristata (M. Sars).
Phyllocomus crocea, Grube.
Neosabellides elongatus (Ehlers).
Amphicteis gunneri (M. Sars).
Amphicteis gunneri (M. Sars), var *antarctica*, Hessle
Amphicteis gunneri (M. Sars), var. *japonica*, McIntosh.

Family TEREBELLIDAE

Terebella ehlersi, Gravier.
Loimia medusa (Savigny).
Loimia montagui (Grube).
Pista mirabilis, McIntosh.
Pista corrientis, McIntosh.
Leaena abranchiata, Ehlers, var. *antarctica* (McIntosh).
Leaena collaris, Hessle.
Neoleprea streptochaeta (Ehlers).
Lanice vayssieri (Gravier).
Amphitrite kerguelensis, McIntosh.
Amphitrite edwardsi (Quatrefages).
Nicolea chilensis (Schmarda).
Nicolea macrobranchia (Schmarda).
Artacama proboscidea, Malmgren.
Thelepus cincinnatus (Fabricius).
Thelepus setosus (Quatrefages).
Polycirrus kerguelensis (McIntosh).
Polycirrus hamiltoni, Benham.
Polycirrus hesslei, n.sp.
Lysilla loveni, Malmgren, var. *macintoshi*, Gravier.
Hauchiella tribullata (McIntosh).
Terebellides minutus, Hessle.
Terebellides longicaudatus, Hessle.

Family SABELLIDAE

Sabella pavonina, Savigny.
Potamilla antarctica (Kinberg).
Bispira magalhaensis (Kinberg).
Dasychone violacea (Schmarda).
Dasychone natalensis (Kinberg).
Dasychone nigromaculata (Baird).
Hypsicomus torquatus (Grube).
Euratella puncturata (Augener).
Euchone pallida, Ehlers.
Jasmineira scotti, Benham.

Family SERPULIDAE

Serpula vermicularis, L.
Serpula loveni (Kinberg).
Hydroides norvegica (Gunner).
Vermiliopsis notialis, n.sp.
Vermiliopsis glandigerus, Gravier.
Vermiliopsis richardi, Fauvel, var. ***fauveli***, var. nov.
Salmacina dysteri (Huxley), var. ***falklandica***, var. nov.

Pelagic species

Family POLYNOIDAE

Podarmus atlanticus, n.sp.
Sheila bathypelagica, gen. et sp. nov.
Lagisca hubrechti (McIntosh).
Nectochaeta caroli, Fauvel.
Macellicephala, sp.
Antinoë pelagica, n.sp.

Family PHYLLODOCIDAE

Lopadorhynchus brevis, Grube.

Lopadorhynchus krohnii (Claparède), var. ***simplex***, var. nov.

Family ALCIOPIDAE

Vanadis longissima (Levinsen).
Vanadis formosa, Claparède.
Torrea candida (Delle Chiaje).
Callizona angelini (Kinberg).
Greeffia oahuensis, McIntosh.
Rhynconerella fulgens, Greeff.
Alciopa cantrainii (Delle Chiaje).

Family TOMOPTERIDAE

Tomopteris carpenteri, Quatrefages.
Tomopteris septentrionalis, Quatrefages.
Tomopteris cavallii, Rosa.
Tomopteris nisseni, Rosa.
Tomopteris kempi, n.sp.

Family TYPHLOSCOLECIDAE

Sagitella kowalewskii, Wagner.
Sagitella cornuta, Ehlers.
Sagitella lobifera, Ehlers.
Typhloscolex mülleri, Busch.
Travisiopsis sp.

The total number of benthic species or varieties is 220, belonging to 128 genera, and of pelagic species or varieties 25, belonging to 17 genera.

There are 2 new genera and 29 new species or varieties in this collection, and several additions have been made to the number of species recorded from the colder waters of both hemispheres. I see no reason to doubt the truth of the explanation adopted by Fauvel (1925 *A*, p. 316), Gravier and others of the presence of the same or closely allied species at both poles.

GEOGRAPHICAL DISTRIBUTION

The table on pp. 10–17 is constructed to show where, and at what stations, the species were found; to what extent the Polychaete faunas, as far as they are represented in this collection, diverge or overlap in the several regions (South Georgia and the Falkland Islands, Tristan da Cunha and the Cape, etc.); and how often any two or more species occur at the same stations. Regarding the last, the practice by systematists of presenting their data in some such easily accessible form should prove valuable to the student of animal communities.

The station numbers are not arranged in chronological order, but according to the areas in which they occur, related regions being juxtaposed. A few species are without record of station, and these are omitted from the table.

Each species has a number, which is carried over to the left-hand side of the right-hand pages. The numbers in the columns are station numbers.

	Palmer Archipelago 'Discovery'	S. Shetlands 'Discovery'	Between S. Shetlands and The Horn, 'Discovery'	Between S. Orkneys and S. Shetlands 'Discovery'	Off S. Orkneys 'Discovery'	Between S. Georgia and S. Orkneys, 'Discovery'	South Sandwich Islands	Off Bouvet Island 'Discovery'	Off S. Georgia 'Discovery'
1 *Hermodice carunculata*, var. *didymobranchiata*	—	—	—	—	—	—	Only pelagic gear used	—	—
2 *Eurythoë complanata*	—	—	—	—	—	—		—	—
3 *Eurythoë chilensis*	—	—	—	—	—	—		—	—
4 *Chloeia viridis*	—	—	—	—	—	—		—	—
5 *Notopygos megalops*	—	—	—	—	—	—		—	—
6 *Paramphinome australis*	—	—	—	—	167				
7 *Euphrosyne arctia*	—	—	—	—	—	—		—	27 39 42 140
7 ,, ,,									144 149
8 *Aphrodite alta*	181								
9 *Laetmonice producta*	180 181 182	175	—	170	—	160		—	42 45 123 144
9 ,, ,,	186 187								148 149 152
10 *Hermadion ferox*	—	—	—	—	—	—		—	39 42 149
11 *Hermadion magalhaensi*	—	—	—	—	—	—		—	27 140
11 ,, ,,									
12 *Podarmus atlanticus*	—	—	—	—	—	—		—	—
13 *Sheila bathypelagica*	—	—	—	—	—	—		—	—
14 *Lagisca hubrechti*	—	—	—	169	—	—		—	—
15 *Malmgrenia micropoides*	—	—	—	—	—	—		—	—
16 *Nectochaeta caroli*	—	—	—	—	—	—		—	—
17 *Macellicephala* sp.	—	—	—	—	—	—		—	144
18 *Scalisetosus pellucidus*	—	—	—	—	—	—		—	—
19 *Lepidonotus semitectus*	—	—	—	—	—	—		—	—
20 *Eulagisca corrientis*	181 190	—	—	170					
21 *Eunoë opalina*	187								
22 *Eucrantha mollis*	181	—	—	170	—	—		—	159
23 *Polyeunoa laevis*	181 182 187	—	—	170	—	160		—	39 42 144 148
23 ,, ,,	190								149 152 159
23 ,, ,,									
24 *Polynoë antarctica*	181	—	—	—	—	—		—	—
24 ,, ,,									
25 *Harmothoë magellanica*	187 190	195	—	—	—	160		—	27 39 42 45
25 ,, ,,									123 140 144 146
25 ,, ,,									148 149 152 156
25 ,, ,,									159
26 *Harmothoë spinosa*	190	175 177 195	—	—	163 164	160		—	45 141 145 146
26 ,, ,,									
26 ,, ,,									
26 ,, ,,									
27 *Harmothoë exanthema*	—	—	—	—	—	—		—	—
28 *Harmothoë anderssoni*	—	—	—	—	—	—		—	144
29 *Harmothoë crosetensis*	190	175 195	—	170	—	—		—	—
30 *Harmothoë impar*, var. *notialis*	—	—	—	—	—	—		—	—
31 *Harmothoë kerguelensis*	—	—	—	—	—	—		—	126
32 *Harmothoë cristata*	181 190	195							
33 *Harmothoë curviseta*	181 186								
34 *Antinoë pelagica*	—	—	—	—	—	—		—	18 45
35 *Antinoë setobarba*	—	195							
36 *Antinoë antarctica*	—	—	—	—	—	—		—	29 39 45 123
36 ,, ,,									140 142 149
37 *Antinoë epitoca*	—	—	—	—	—	—		—	—
38 *Eupanthalis tubifex*	—	—	—	—	—	—		—	—
39 *Polyodontes mortenseni*	—	—	—	—	—	—		—	—
40 *Euthalanessa dendrolepis*	—	—	—	—	—	—		—	—
41 *Leanira incisa*	—	—	—	—	—	—		—	—
42 *Eteone sculpta*	—	—	—	—	166	—		—	145
42 ,, ,,									
43 *Eteone aurantiaca*	—	—	—	—	—	—		—	—
44 *Eteone rubella*	—	—	—	—	—	—		—	149
45 *Phyllodoce patagonica*	182	—	—	—	167	160		—	27 45 141 142
45 ,, ,,									144 145
46 *Phyllodoce bowersi*	—	—	—	—	167				
47 *Phyllodoce oculata*	—	—	—	—	—	—		—	—
48 *Phyllodoce longipes*	—	—	—	—	—	—		—	142
49 *Austrophyllum charcoti*	—	195	—	—	—	160		—	45
50 *Genetyllis polyphylla*	190	—	—	—	—	—		—	145
51 *Eulalia magalhaensis*	—	—	—	—	—	—		—	45 141 145
52 *Eulalia viridis*	—	—	—	—	—	—		—	—
53 *Eulalia anomalochaeta*	190	175	—	—	—	—		—	42
54 *Eulalia picta*	—	—	—	—	—	—		—	149 156
55 *Lopadorhynchus brevis*	—	—	—	—	—	—		—	—
56 *Lopadorhynchus krohnii*, var. *simplex*	—	—	—	—	—	—		—	—

	S. Georgia Marine Biological Station	Off S. Georgia ‘William Scoresby’	Off Falkland Islands ‘Discovery’	N. of Falkland Islands ‘William Scoresby’	Between Falkland Islands and The Horn ‘Discovery’	Between Falkland Islands and S. America ‘William Scoresby’	Between Falkland Islands and Cape Town ‘Discovery’	Off Gough Island ‘William Scoresby’	Tristan da Cunha ‘Discovery’	Off South-west Africa ‘Discovery’	Off South-west Africa ‘William Scoresby’	South Africa Marine Biological Station	Between Cape Town and Cape Verde Islands ‘Discovery’	Ascension Island ‘Discovery’
1	—	—	—	—	—	—	—	—	—	—	—	—	279 283	1 2
2	—	—	—	—	—	—	—	—	—	—	—	—	283	
3	—	—	—	—	—	—	—	—	4					
4	—	—	—	—	—	—	—	—	—	—	—	—	283	
5	—	—	—	—	—	—	—	—	—	—	—	—	283	
6														
7	71													
7														
8														
9	—	33												
9														
10														
11	71	—	51 52 53	—	—	73 80 81								
11			57 58			84 85 93								
12	—	—	—	—	—	—	—	—	—	—	—	—	282	
13	—	—	—	—	—	—	256							
14	—	—	—	—	—	—	—	—	—	100	—	—	267	
15	—	—	—	—	—	—	—	—	—	—	—	—	283	
16	—	—	—	—	—	—	—	—	—	—	—	—	273 276	
17														
18	—	—	—	—	—	—	—	—	—	90	—	82		
19	—	—	—	—	—	—	—	—	—	90				
20														
21														
22	—	—	—	—	—	97								
23	—	—	—	—	—	81 82 83								
23						85 86 91								
23						93 97								
24	—	—	51	—	—	73 79 80								
24						81								
25	14 68 71	27	—	109	—	73 76 88								
25						97								
25														
25														
26	6 68 71	25 56 62	48 51 52	—	—	72 73 76								
26			53 55 57			77 79 80								
26			58			84 85 93								
26						97								
27	—	—	53 56 58	—	—	79 88								
28														
29	—	—	—	—	—	—	—	—	—	90				
30	—	—	51											
31														
32														
33														
34														
35														
36	68													
36														
37	—	—	—	—	—	—	—	—	—	—	—	—	274	
38	—	—	—	—	—	—	—	—	—	—	—	—	274	
39	—	—	—	—	—	—	—	—	—	—	—	—	279	
40	—	—	—	—	—	—	—	—	—	—	—	—	283	
41	—	—	—	—	—	—	—	—	—	—	—	—	274 279	
42	—	—	—	—	—	71 84 85								
42						88								
43	—	65												
44														
45	71	—	—	—	—	—	—	—	—	91				
45														
46														
47	—	—	—	—	—	—	—	—	4	—	—	—	283	1
48														
49	68													
50	14													
51	—	25												
52	—	—	—	—	—	—	—	—	—	—	—	—	283	
53														
54	71	—	56 57											
55	—	—	—	—	—	—	—	—	—	—	—	—	273	
56	—	—	—	—	—	—	—	—	—	104	—	—	267 268	

	Palmer Archipelago 'Discovery'	S. Shetlands 'Discovery'	Between S. Shetlands and The Horn, 'Discovery'	Between S. Orkneys and S. Shetlands 'Discovery'	Off S. Orkneys 'Discovery'	Between S. Georgia and S. Orkneys, 'Discovery'	South Sandwich Islands	Off Bouvet Island 'Discovery'	Off S. Georgia 'Discovery'
57 *Vanadis longissima*	—	—	220	—	—	—	—	—	—
58 *Vanadis formosa*	—	—	—	—	—	—	—	—	—
58 ,, ,,									
59 *Torrea candida*	—	—	—	—	—	—	—	—	—
60 *Callizona angelini*	—	—	—	—	—	—	—	—	—
61 *Greeffia oahuensis*	—	—	—	—	—	—	—	—	—
62 *Rhynconcrella fulgens*	—	—	—	—	—	—	33 53		
63 *Alciopa cantrainii*	—	—	—	—	—	—	—	—	—
64 *Tomopteris carpenteri*	—	—	—	—	—	—	6 10 12 16	114 118	17 36 37 38
64 ,, ,,							17 19 21 22		41
64 ,, ,,							32 57		
65 *Tomopteris septentrionalis*	—	—	—	—	—	—	6 10 16 17	—	—
65 ,, ,,							19 20 21 24		
65 ,, ,,							32 33 35 44		
65 ,, ,,							56		
66 *Tomopteris cavallii*	—	—	—	—	—	—	—	—	—
67 *Tomopteris nisseni*	—	—	—	—	—	—	—	—	—
67 ,, ,,									
68 *Tomopteris kempi*	—	—	—	—	—	—	—	—	—
69 *Sagitella kowalewskii*	—	—	220	—	—	—	—	116	17
70 *Sagitella cornuta*	—	—	—	—	—	—	—	—	—
71 *Sagitella lobifera*	—	—	—	—	—	—	—	—	—
72 *Typhloscolex mülleri*	—	—	—	—	—	—	53		
73 *Travisiopsis* sp.	—	—	—	—	—	—	Only pelagic gear used	—	—
74 *Orseis* sp.	—	—	—	—	—	—		—	—
75 *Leocrates diplognathus*	—	—	—	—	—	—		—	—
76 *Pionosyllis comosa*	—	—	—	—	—	—		—	39
77 *Pionosyllis maxima*	—	—	—	—	—	—		—	45
78 *Eusyllis kerguelensis*	—	—	—	—	—	—		—	39
78 ,, ,,									
79 *Trypanosyllis gigantea*	190	175	—	—	—	160		—	27 45 123 140
79 ,, ,,									145 148 149
80 *Trypanosyllis gemmulifera*	—	—	—	—	—	—		—	—
81 *Autolytus charcoti*	190	—	—	—	—	—		—	45
82 *Autolytus gibber*	—	—	—	170	—	—		—	141
83 *Autolytus simplex*	—	—	—	—	—	—		—	—
84 *Autolytus* sp.	—	—	—	—	—	—		—	135
85 *Grubea clavata*	—	—	—	—	—	—		—	—
86 *Syllis prolixa*	—	—	—	—	—	—		—	45
87 *Syllis brachychaeta*	190	—	—	—	—	—		—	—
88 *Syllis brachycola*	190	—	—	—	—	—		—	—
89 *Syllis variegata*	—	—	—	—	—	—		—	—
90 *Syllis sclerolaema*	—	—	—	—	—	—		—	—
91 *Nereis kerguelensis*	190	175	—	—	163 164	—		—	45 141 145
92 *Nereis callaona*	—	—	—	—	—	—		—	—
93 *Nereis eugeniae*	—	—	—	—	—	—		—	—
93 ,, ,,									
94 *Nereis typhla*	—	—	—	—	—	—		—	152
95 *Nereis pelagica*	—	—	—	—	—	—		—	—
96 *Platynereis magalhaensis*	—	—	—	—	—	—		—	145
96 ,, ,,									
97 *Platynereis dumerilii*	—	—	—	—	—	—		—	—
98 *Leptonereis loxechini*	182 190	175	—	170	—	—		—	123
98 ,, ,,									
99 *Eunereis hardyi*	—	—	—	—	—	—		—	—
100 *Ceratonereis vittata*	—	—	—	—	—	—		—	—
101 *Nephthys macrura*	180 181 182	173 175 195	—	—	167	160		—	27 28 29 45
101 ,, ,,	186 190								140 143 144 146
101 ,, ,,									148 149 157 159
102 *Nephthys lyrochaeta*	—	—	—	—	—	—		—	—
103 *Nephthys serratifolia*	—	—	—	—	—	—		—	—
104 *Ephesia antarctica*	—	—	—	170					
105 *Glycera capitata*	190	175 177	—	—	—	160		—	27 42 45 123
105 ,, ,,									144 149 159
106 *Glycera tesselata*	—	—	—	—	—	—		—	—
107 *Glycera convoluta*	—	—	—	—	—	—		—	—
108 *Goniada congoensis*	—	—	—	—	—	—		—	—
109 *Eunice pennata*	—	—	—	—	—	160		—	152 156 157 159
110 *Eunice siciliensis*	—	—	—	—	—	—		—	—
111 *Eunice vittata*	—	—	—	—	—	—		—	—
112 *Eunice longicirrata*	—	—	—	—	—	—		—	—
113 *Eunice murrayi*	—	—	—	—	—	—		—	—
114 *Nicidion kinbergii*	—	—	—	—	—	—		—	—

	S. Georgia Marine Biological Station	Off S. Georgia 'William Scoresby'	Off Falkland Islands 'Discovery'	N. of Falkland Islands 'William Scoresby'	Between Falkland Islands and The Horn 'Discovery'	Between Falkland Islands and S. America 'William Scoresby'	Between Falkland Islands and Cape Town 'Discovery'	Off Gough Island 'William Scoresby'	Tristan da Cunha 'Discovery'	Off South-west Africa 'Discovery'	Off South-west Africa 'William Scoresby'	South Africa Marine Biological Station	Between Cape Town and Cape Verde Islands 'Discovery'	Ascension Island 'Discovery'
57	—	—	—	—	—	—	—	—	—	—	—	—	287 291	
58	—	—	—	—	—	—	85 87 89	—	—	102	—	—	270 282 287	
58							259							
59	—	—	—	—	—	—	—	—	—	102	—	—	294	
60	—	—	—	—	—	—	250 254 257	—	—	—	—	—	268	
61	—	—	—	—	—	—	—	—	—	—	—	—	273 288 289	
62														
63	—	—	—	—	—	—	—	—	—	100	—	—	287 289	
64	11 19 22													
64	25 31 32													
64	34*a* 62 68													
65	26*b*	—	—	—	—	—	69							
65														
65														
65														
66	—	—	—	—	—	—	89							
67	—	—	—	—	—	—	78 87 89	—	—	—	—	—	267 282 288	
67													293	
68	—	—	—	—	—	—	—	—	6					
69	—	—	—	—	—	—	78 85 89							
70	—	—	—	—	—	—	258							
71	—	—	—	—	—	—	78 85	—	—	100				
72														
73	—	—	—	—	—	—	—	—	—	100				
74	68													
75	—	—	—	—	—	—	—	—	—	—	—	—	283	
76														
77														
78	—	—	51 53 56	—	—	72								
78			57											
79	68 71	25	—	—	—	80 83 84								
79						86 93 97								
80	—	—	—	—	—	—	—	—	—	—	—	—	—	1
81	14													
82														
83	—	—	53 57	—	—	—	63							
84														
85	—	25												
86	—	—	51 58											
87	—	—	—	—	—	—	—	—	4					
88	—	—	51	—	—	—	—	128						
89	—	—	52 55 58	—	—	88	—	—	—	—	—	—	283	2
90	—	—	51											
91	6 68	25 56 65	51	—	—	71 84 86								
92	—	—	—	—	—	—	—	—	—	90				
93	—	—	51 52 58	—	—	71 79 80								
93						81 84								
94														
95	—	—	—	—	—	—	—	—	4					
96	—	25 65	51 53 55	—	222	75								
96			56 58											
97	—	—	—	—	—	—	—	—	—	90	—	82		
98	—	—	—	—	—	83 93 97	—	—	6					
98						99								
99	—	—	—	—	—	—	86 88	—	—	90 93				
100	—	—	—	—	—	—	—	—	—	—	—	—	283	
101	15 68	25 32 33												
101														
101														
102	—	—	—	—	—	—	—	—	—	—	—	—	279	
103	—	—	51	—	—	79 91								
104														
105	68 71	—	51 55 58	—	—	84 86	—	—	4					
105														
106	—	—	—	—	—	—	—	—	—	—	—	—	283	
107	—	—	—	—	—	—	—	—	4					
108	—	—	—	—	—	—	—	—	—	—	—	—	274	
109	—	—	51	—	—	—	—	—	6					
110	—	—	—	—	—	—	—	—	—	—	—	—	283	
111	—	—	—	—	—	—	—	—	—	—	—	—	283	
112	—	—	—	—	—	—	—	—	—	—	—	—	283	
113	—	—	—	—	—	—	—	—	—	91				
114	—	—	—	—	—	—	—	—	—	—	—	—	—	1

	Palmer Archipelago ‘Discovery’	S. Shetlands ‘Discovery’	Between S. Shetlands and The Horn, ‘Discovery’	Between S. Orkneys and S. Shetlands ‘Discovery’	Off S. Orkneys ‘Discovery’	Between S. Georgia and S. Orkneys, ‘Discovery’	South Sandwich Islands	Off Bouvet Island ‘Discovery’	Off S. Georgia ‘Discovery’
115 *Nicidion edentulum*	—	—	—	—	—	—	Only pelagic gear used	—	—
116 *Diopatra cuprea*	—	—	—	—	—	—		—	—
117 *Diopatra punctifera*	—	—	—	—	—	—		—	—
118 *Epidiopatra hupferiana*	—	—	—	—	—	—		—	—
119 *Rhamphobrachium ehlersi*	—	172							
120 *Onuphis eremita*	—	—	—	—	—	—		—	—
121 *Onuphis notialis*	190	175	—	170	—	—		—	152
122 *Onuphis quadricuspis*	—	—	—	—	—	—		—	—
123 *Onuphis iridescens*	—	—	—	—	—	—		—	—
124 *Leptoecia antarctica*	—	177							
125 *Lumbrinereis magalhaensis*	—	195	—	—	167	—		—	27 29 30 39
125 ,, ,,									42 45 123 140
125 ,, ,,									141 144 145 152
125 ,, ,,									159
126 *Lumbrinereis africana*	—	—	—	—	—	—		—	—
127 *Lumbrinereis coccinea*	—	—	—	—	—	—		—	—
128 *Lumbrinereis heteropoda*	—	—	—	—	—	—		—	—
129 *Lumbrinereis tetraura*	—	—	—	—	—	—		—	—
130 *Lumbrinereis antarctica*	182								
131 *Augeneria tentaculata*	187	—	—	—	167				
132 *Arabella iricolor*	—	—	—	—	—	—		—	—
133 *Drilonereis filum*	—	—	—	—	—	—		—	—
134 *Drilonereis* sp.	—	—	—	—	—	—		—	—
135 *Staurocephalus neglectus*	—	—	—	—	—	—		—	—
136 *Staurocephalus rubrovittatus*	—	—	—	—	—	—		—	—
137 *Aricia marginata*	—	—	—	—	—	—		—	45 141 144
138 *Aricia michaelseni*	—	—	—	—	—	—		—	—
139 *Scoloplos mawsoni*	—	—	—	—	—	—		—	29
140 *Scoloplos armiger*	—	—	—	—	—	—		—	—
141 *Pygospio dubia*	—	—	—	—	—	—		—	29
142 *Nerine* sp.	181								
143 *Prionospio africana*	—	—	—	—	—	—		—	—
144 *Paraonis gracilis*	—	—	—	—	—	—		—	29
145 *Chaetopterus variopedatus*	—	—	—	—	—	—		—	—
146 *Phyllochaetopterus socialis*	—	—	—	—	—	—		—	—
147 *Phyllochaetopterus* sp.	—	—	—	—	167	—		—	146
148 *Audouinia filigera*, var. *capensis*	—	—	—	—	—	—		—	—
149 *Cirratulus cirratus*	—	—	—	—	—	—		—	45 145
150 *Cirratulus antarcticus*	—	—	—	—	—	—		—	29 39 45 140
151 *Cirratulus afer*	—	—	—	—	—	—		—	—
152 *Dodecaceria concharum*	—	—	—	—	—	—		—	—
153 *Heterocirrus caput-esocis*, var. *capensis*	—	—	—	—	—	—		—	—
154 *Tharyx epitoca*	181 190								
155 *Tharyx* sp.	—	—	—	—	—	—		—	30
156 *Stylarioides kerguelarum*	—	—	—	—	—	—		—	39 45 141
157 *Stylarioides swakopianus*	—	—	—	—	—	—		—	—
158 *Flabelligera affinis*	—	—	—	—	—	—		—	45 140
159 *Flabelligera luctator*	—	—	—	—	—	—		—	—
160 *Flabelligera pennigera*	—	—	—	—	—	—		—	141 144 145
161 *Flabelligera mundata*	190								
162 *Brada villosa*	—	175	—	—	167				
163 *Brada mammillata*	—	—	—	170					
164 *Pycnoderma congoense*	—	—	—	—	—	—		—	—
165 *Scalibregma inflatum*	—	—	—	—	—	—		—	27 28 148
166 *Capitella capitata*	—	—	—	—	—	—		—	—
167 *Notomastus latericeus*	—	—	—	—	—	—		—	27 159
168 ? *Notomastus lineatus*	—	—	—	—	—	—		—	152
169 *Ammotrypane breviata*	—	—	—	—	167				
170 *Travisia olens*	—	—	—	—	—	—		—	—
171 *Travisia kerguelensis*	—	175	—	170	—	—		—	146 157 159
172 *Travisia kerguelensis*, var. *gravieri*	187 190								
173 *Kesun abyssorum*	—	177							
174 *Maldane decorata*	—	—	—	—	—	—		—	—
175 *Maldane sarsi*, var. *antarctica*	181 182 186	177 195	—	—	—	—		—	123
175 ,, ,,	192								
176 *Rhodine intermedia*	187	—	—	—	—	—		—	27 42 140 141
176 ,, ,,									152
177 *Lumbriclymenella robusta*	—	195	—	—	—	—		—	27 140
178 *Clymenella minor*	—	—	—	—	—	—		—	—
179 *Clymenella kerguelensis*	—	—	—	—	167	—		—	27

	S. Georgia Marine Biological Station	Off S. Georgia 'William Scoresby'	Off Falkland Islands 'Discovery'	N. of Falkland Islands 'William Scoresby'	Between Falkland Islands and The Horn 'Discovery'	Between Falkland Islands and S. America 'William Scoresby'	Between Falkland Islands and Cape Town 'Discovery'	Off Gough Island 'William Scoresby'	Tristan da Cunha 'Discovery'	Off South-west Africa 'Discovery'	Off South-west Africa 'William Scoresby'	South Africa Marine Biological Station	Between Cape Town and Cape Verde Islands 'Discovery'	Ascension Island 'Discovery'
115	—	—	—	—	—	—	—	—	—	—	—	—	283	
116	—	—	—	—	—	—	—	—	—	—	—	—	274	
117	—	—	—	—	—	—	—	—	—	—	4			
118	—	—	—	—	—	—	—	—	—	91				
119														
120	—	—	—	—	—	—	—	—	—	91				
121														
122	—	—	51	—	—	78 95								
123	—	—	—	—	228									
124														
125	68 71	25 65	51											
125														
125														
125														
126	—	—	—	—	—	—	—	—	—	—	—	—	279	
127	—	—	—	—	—	—	—	—	—	—	—	—	283	
128	—	—	—	—	—	—	—	—	4	—	—	—	279	
129	—	—	51 57	—	—	84	—	—	—	90				
130														
131														
132	—	—	51											
133	—	—	—	—	—	—	—	—	—	—	—	—	279	
134	—	—	—	—	—	—	—	—	4					
135	—	—	—	—	—	—	—	—	—	90				
136	—	—	—	—	—	—	—	—	—	—	—	—	283	
137	25	25 62												
138	—	—	56											
139	—	32												
140	—	—	—	—	—	—	—	—	—	90				
141														
142														
143	—	—	—	—	—	—	—	—	—	—	—	—	279	
144														
145	—	—	58	—	222	80 81 88	—	128	—	—	—	—	274	
146	—	—	—	—	—	—	—	—	—	—	—	—	272	
147														
148	—	—	—	—	—	—	—	—	—	90				
149	6 66	25 62	—	—	—	73 97								
150														
151	—	—	—	—	—	—	—	—	—	—	—	—	279	
152	—	—	—	—	—	—	—	—	—	—	—	—	—	2
153	—	—	—	—	—	—	—	—	—	90				
153														
154														
155	68 71													
156														
157	—	—	—	—	—	—	—	—	4					
158	—	—	51 53	—	—	77								
159	—	—	—	—	—	—	—	—	—	90				
160														
161														
162														
163														
164	—	—	—	—	—	—	—	—	—	—	—	—	274	
165	68													
166	67													
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169														
170	—	—	51											
171														
172														
172														
173														
174	—	—	—	—	—	—	—	—	—	—	—	—	274	
175														
175														
176														
176														
177														
178	—	—	51	—	—	78								
179														

		Palmer Archipelago ‘Discovery’	S. Shetlands ‘Discovery’	Between S. Shetlands and The Horn, ‘Discovery’	Between S. Orkneys and S. Shetlands ‘Discovery’	Off S. Orkneys ‘Discovery’	Between S. Georgia and S. Orkneys, ‘Discovery’	South Sandwich Islands	Off Bouvet Island ‘Discovery’	Off S. Georgia ‘Discovery’
180	*Clymene yungi*	181 190	177	—	—	—	—	Only pelagic gear used	—	27 45 140 148
180	,, ,,	—	—	—	—	—	—		—	149 152 153
181	*Asychis amphiglypta*	181 186	195	—	—	—	—		—	29 30
182	*Nicomache* sp.	190								
183	*Axiothella antarctica*	—	—	—	—	167	—		—	—
184	*Owenia fusiformis*	—	—	—	—	—	—		—	—
185	*Gunnarea capensis*	—	—	—	—	—	—		—	—
186	*Idanthyrsus armatus*	—	—	—	—	—	—		—	—
186	,, ,,									
186	,, ,,									
187	*Idanthyrsus pennatus*	—	—	—	—	—	—		—	—
188	*Sternaspis scutata*	181 182 187	177	—	—	167	—		—	45 145
188	,, ,,	190								
189	*Sternaspis scutata*, var. *africana*	—	—	—	—	—	—		—	—
190	*Pectinaria* sp.	—	—	—	—	—	—		—	—
191	*Amage sculpta*	—	177	—	—	167				
192	*Melinna cristata*	—	—	—	—	—	—		—	27
193	*Phyllocomus crocea*	—	177	—	—	—	—		—	—
194	*Neosabellides elongatus*	—	—	—	—	—	—		—	140 159
195	*Amphicteis gunneri*	—	—	—	—	—	—		—	—
196	*Amphicteis gunneri*, var. *antarctica*	182	195	—	—	167	160		—	28 30 39 143
196	,, ,,									152
197	*Amphicteis gunneri*, var. *japonica*	—	—	—	—	—	—		—	—
198	*Terebella ehlersi*	190	—	—	—	—	—		—	45 149
199	*Loimia medusa*	—	—	—	—	—	—		—	—
200	*Loimia montagui*	—	—	—	—	—	—		—	—
201	*Pista mirabilis*	—	—	—	170					
202	*Pista corrientis*	—	195	—	—	—	—		—	—
203	*Leaena abranchiata*, var. *antarctica*	—	—	—	—	—	—		—	45
204	*Leaena collaris*	—	—	—	—	—	—		—	45
205	*Neoleprea streptochaeta*	—	—	—	—	—	—		—	45
206	*Lanicides vayssieri*	—	—	—	—	—	—		—	27 45
207	*Amphitrite kerguelensis*	—	195	—	—	—	—		—	27
208	*Amphitrite edwardsi*	—	—	—	—	—	—		—	—
209	*Nicolea chilensis*	—	—	—	—	—	—		—	—
210	*Nicolea macrobranchia*	—	—	—	—	—	—		—	—
211	*Artacama proboscidea*	—	—	—	—	—	—		—	27 30 144
212	*Thelepus cincinnatus*	187	195	—	—	163	—		—	27 39 42 45
212	,, ,,									123 140 146 148
212	,, ,,									149 159
213	*Thelepus setosus*	—	—	—	—	—	—		—	—
214	*Polycirrus kerguelensis*	—	—	—	—	—	—		—	39 42 45 144
214	,, ,,									148
215	*Polycirrus hamiltoni*	—	—	—	—	—	—		—	—
216	*Polycirrus hesslei*	—	—	—	—	—	—		—	—
217	*Lysilla loveni*, var. *macintoshi*	181	—	—	—	—	—		—	28 30
218	*Hauchiella tribullata*	—	—	—	—	—	—		—	—
219	*Terebellides minutus*	—	—	—	—	—	—		—	30 45
220	*Terebellides longicaudatus*	182	—	—	—	—	—		—	27 30 45
221	*Sabella pavonina*	—	—	—	—	—	—		—	—
222	*Potamilla antarctica*	190	175 195	—	—	—	—		—	39 42 45 123
222	,, ,,									153 154
223	*Bispira magalhaensis*	—	—	—	—	—	—		—	—
224	*Dasychone violacea*	—	—	—	—	—	—		—	—
225	*Dasychone natalensis*	—	—	—	—	—	—		—	—
226	*Dasychone nigromaculata*	—	—	—	—	—	—		—	—
227	*Hypsicomus torquatus*	—	—	—	—	—	—		—	—
228	*Euratella puncturata*	—	—	—	—	—	—		—	—
229	*Euchone pallida*	—	172 195	—	—	167	—		—	39 45 123
230	*Jasmineira scotti*	—	—	—	—	—	—		—	—
231	*Serpula vermicularis*	190	—	—	—	—	160		—	27 45 140 146
232	*Serpula loveni*	—	—	—	—	—	—		—	—
233	*Hydroides norvegica*	—	—	—	—	—	—		—	—
234	*Vermiliopsis notialis*	—	—	—	—	—	—		—	148
235	*Vermiliopsis glandigerus*	—	—	—	—	—	—		—	—
236	*Vermiliopsis richardi*, var. *fauveli*	—	—	—	—	—	—		—	—
237	*Salmacina dysteri*, var. *falklandica*	—	—	—	—	—	—		—	—

	S. Georgia Marine Biological Station	Off S. Georgia 'William Scoresby'	Off Falkland Islands 'Discovery'	N. of Falkland Islands 'William Scoresby'	Between Falkland Islands and The Horn 'Discovery'	Between Falkland Islands and S. America 'William Scoresby'	Between Falkland Islands and Cape Town 'Discovery'	Off Gough Island 'William Scoresby'	Tristan da Cunha 'Discovery'	Off South-west Africa 'Discovery'	Off South-west Africa 'William Scoresby'	South Africa Marine Biological Station	Between Cape Town and Cape Verde Islands 'Discovery'	Ascension Island 'Discovery'
180														
180														
181	68													
182														
183	—	—	—	—	—	76								
184	—	—	—	—	—	—	—	—	—	—	4			
185	—	—	—	—	—	—	—	—	—	—	—	82		
186	—	—	51 53	—	—	72 77 79								
186						85 88 92								
186						93								
187	—	—	—	—	—	—	—	—	—	—	—	—	—	2
188														
188														
189	—	—	—	—	—	—	—	—	—	—	—	—	274 279	
190	—	—	—	—	—	—	—	—	4					
191														
192														
193	—	—	—	—	—	80								
194														
195	—	—	—	—	—	—	—	—	—	91				
196	15 69	32												
196														
197	—	—	—	—	—	—	—	—	—	—	—	—	279	
198	68													
199	—	—	—	—	—	—	—	—	—	—	—	—	—	1
200	—	—	—	—	—	—	—	—	—	—	—	—	270	
201														
202	—	—	51											
203	68													
203														
204														
205	—	—	51											
206	14 71	25												
207	—	—	—	—	—	99								
208	—	—	—	—	—	80 81 97								
209	—	—	51 58	—	—	84 88	—	—	4					
210	—	—	—	—	—	—	—	—	—	—	—	82		
211	—	25												
212														
212														
212														
213	14 68 71	27	51 53 58	—	—	97								
214	—	25 56 65	—	—	—	73 79 90								
214	—	—	—	—	—	97								
215	—	—	51 52											
216	—	—	—	—	—	73								
217														
218	68													
219	—	62												
220														
221	—	—	—	—	—	—	—	—	—	91				
222	14	—	48 55 58	—	—	73 79 84								
222						85 88 90								
223	—	—	55 58											
224	—	—	—	—	—	—	—	—	—	90				
225	—	—	—	—	—	—	—	—	—	—	—	82		
226	—	—	—	—	—	—	—	—	—	—	—	—	—	1
227	—	—	—	—	—	—	—	—	—	—	—	—	283	
228	—	—	—	—	—	—	—	—	—	—	—	—	—	2
229	68													
230	—	33												
231	71	27	—	—	—	77 79 92								
232	—	—	—	—	—	—	—	128						
233	—	—	—	—	—	—	—	—	—	91				
234														
235	—	—	—	—	—	—	—	—	—	—	—	—	283	
236	—	—	—	—	—	—	—	—	—	—	—	—	283	
237	—	—	—	—	—	85								

BATHYMETRICAL DISTRIBUTION

Benthic species

The following table of benthic species gives the number of hauls and the number of specimens in parallel columns at three categories of depth, 0–175 m., 175–350 m. and below 350 m. The depth of 350 m. is chosen as being Chun's physiological line, below which assimilation by the phytoplankton ceases. It should be borne in mind, however, that the majority of hauls are coastal, and the presence of detritus, etc., in the water at the coastal stations would raise the level of penetration of the sun-rays, necessary for assimilative activity, to above the 350 m. line.

The object of the table is to show, within the limits of the present material, what species are confined to one of the selected categories of depth, and to what extent other species, not so confined, increase or decrease in numbers per haul in passing from one depth to another. Repeated observations of this kind would reveal at what depth a species or group of species was most dense, and consequently their optimum depth. This would vary with the latitude and conditions of temperature.

A number of species have depth records as, for example, 120–200 m., which do not exactly fit the arbitrary categories of depth used; and these I have placed in the categories to which their recorded depths most nearly approximate. A few species are without any record of depth, and these are excluded from Table II.

TABLE II

Species	0–175 m.		175–350 m.		350–1000 m.	
	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens
Hermodice carunculata, var. *didymobranchiata*	2	16	—	—	—	—
Eurythoë complanata	3	28	—	—	—	—
Eurythoë chilensis	1	1	—	—	—	—
Chloeia viridis	1	1	—	—	—	—
Notopygos megalops	1	1	—	—	—	—
Paramphinome australis	—	—	1	1	—	—
Euphrosyne capensis[1]	1	3	—	—	—	—
Euphrosyne arctia	5	7	2	3	—	—
Aphrodite alta	—	—	1	1	—	—
Laetmonice producta[2]	5	14	10	102	—	—
Hermadion ferox	1	2	2	3	—	—
Hermadion magalhaensi	14	146	—	—	—	—
Malmgrenia micropoides	1	1	—	—	—	—
Euphione elisabethae[3]	—	—	—	—	—	—
Scalisetosus pellucidus	2	3	—	—	—	—
Lepidonotus semitectus	1	5	—	—	—	—
Eulagisca corrientis	1	1	2	3	—	—
Eunoë opalina	—	—	1	1	—	—
Eucrantha mollis	2	2	2	6	—	—
Polyeunoa laevis[4]	13	113	9	40	1	2
Polynoë antarctica	5	8	1	1	—	—
Harmothoë magellanica	13	77	11	99	2	6
Harmothoë spinosa	25	150	6	18	3	3
Harmothoë exanthema	5	18	—	—	—	—
Harmothoë anderssoni	1	1	—	—	—	—
Harmothoë crosetensis	1	4	4	4	—	—
Harmothoë impar, var. *notialis*	1	2	—	—	—	—
Harmothoë kerguelensis	1	1	—	—	—	—
Harmothoë cristata	—	—	3	4	—	—
Harmothoë curviseta	—	—	2	2	—	—
Antinoë setobarba	—	—	—	—	1	1
Antinoë antarctica	2	2	6	37	—	—
Antinoë epitoca	1	1	—	—	—	—
Eupanthalis tubifex	1	1	—	—	—	—
Polyodontes mortenseni	1	1	—	—	—	—
Euthalanessa dendrolepis	1	2	—	—	—	—
Leanira incisa	2	4	—	—	—	—
Eteone sculpta	6	6	1	3	—	—
Eteone aurantiaca	1	1	—	—	—	—
Eteone rubella	—	—	1	1	—	—
Phyllodoce patagonica	7	14	4	6	1	1
Phyllodoce bowersi	—	—	1	1	—	—
Phyllodoce oculata	3	5	—	—	—	—
Phyllodoce longipes[5]	—	—	—	—	—	—
Austrophyllum charcoti	—	—	3	5	1	2
Genetyllis polyphylla	2	3	1	2	—	—
Eulalia magalhaensis	4	7	1	1	—	—
Eulalia viridis	1	10	—	—	—	—
Eulalia anomalochaeta	1	2	3	3	—	—
Eulalia subulifera	1	3	—	—	—	—
Eulalia picta	3	3	2	6	—	—
Orseis sp.	—	—	1	20	—	—
Leocrates diplognathus	1	1	—	—	—	—
Pionosyllis comosa	—	—	1	1	—	—
Pionosyllis maxima	—	—	1	3	—	—
Eusyllis kerguelensis	5	7	1	1	—	—
Trypanosyllis gigantea	14	26	6	7	—	—
Trypanosyllis gemmulifera	1	1	—	—	—	—
Autolytus charcoti	2	2	1	1	—	—
Autolytus gibber	1	3	1	1	—	—
Autolytus simplex	3	20	—	—	—	—
Autolytus sp.	1	1	—	—	—	—
Grubea clavata	1	4	—	—	—	—
Syllis prolixa	2	2	1	1	—	—
Syllis brachychaeta	3	13	—	—	—	—
Syllis brachycola	3	9	—	—	—	—
Syllis variegata	6	18	—	—	—	—
Syllis sclerolaema	1	2	—	—	—	—
Nereis kerguelensis	13	45	3	11	—	—
Nereis callaona	1	1	—	—	—	—
Nereis eugeniae	8	29	—	—	—	—
Nereis typhla	—	—	1	1	—	—
Nereis pelagica	1	3	—	—	—	—
Platynereis magalhaensis	10	31	—	—	—	—
Platynereis dumerilii	2	22	—	—	—	—
Leptonereis loxechini	5	34	5	65	1	1
Nereis (Eunereis) hardyi	4	26	—	—	—	—
Ceratonereis vittata	1	1	—	—	—	—
Nephthys macrura[6]	12	37	12	103	4	15
Nephthys lyrochaeta	1	4	—	—	—	—

[1] Shore coll.

[2] 1 : 10. 278–500 m., i.e. one haul and 10 specimens. This form is used throughout.

[3] 1 : 3. 310–402 m.

[4] 1 : 11. 278–500 m.

[5] 1 : 1. 88–273 m.

[6] 1 : 15. 278–500 m.

Species	0–175 m.		175–350 m.		350–1000 m.	
	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens
Nephthys serratifolia	2	7	1	1	—	—
Ephesia antarctica	—	—	1	4	—	—
Glycera capitata	16	32	6	15	1	1
Glycera tesselata	1	1	—	—	—	—
Glycera convoluta	1	3	—	—	—	—
Goniada congoensis	1	2	—	—	—	—
Eunice pennata	3	112	3	71	1	1
Eunice siciliensis	1	5	—	—	—	—
Eunice vittata	1	15	—	—	—	—
Eunice longicirrata	1	15	—	—	—	—
Eunice rousseaui	1	1	—	—	—	—
Eunice murrayi	1	3	—	—	—	—
Nicidion kinbergii	1	2	—	—	—	—
Nicidion edentulum	1	4	—	—	—	—
Diopatra cuprea	1	18	—	—	—	—
Diopatra punctifera	1	14	—	—	—	—
Epidiopatra hupferiana	1	2	—	—	—	—
Rhamphobrachium ehlersi	—	—	—	—	1	2
Onuphis eremita	1	1	—	—	—	—
Onuphis notialis	—	—	4	12	—	—
Onuphis quadricuspis	3	10	—	—	—	—
Onuphis iridescens	—	—	—	—	1	2
Leptoecia antarctica	—	—	—	—	1	60
Lumbrinereis magalhaensis	14	63	6	28	1	3
Lumbrinereis africana	1	4	—	—	—	—
Lumbrinereis coccinea	1	2	—	—	—	—
Lumbrinereis heteropoda	2	5	—	—	—	—
Lumbrinereis tetraura	4	17	—	—	—	—
Lumbrinereis antarctica[1]	—	—	—	—	—	—
Augeneria tentaculata	—	—	2	15	—	—
Arabella iricolor	1	4	—	—	—	—
Drilonereis filum	1	4	—	—	—	—
Drilonereis sp.	1	2	—	—	—	—
Staurocephalus neglectus	1	1	—	—	—	—
Staurocephalus rubrovittatus	1	1	—	—	—	—
Aricia marginata	5	43	1	70	—	—
Aricia michaelseni	1	1	—	—	—	—
Nainereis hexaphyllum	1	2	—	—	—	—
Scoloplos mawsoni	1	8	1	3	—	—
Scoloplos armiger	1	1	—	—	—	—
Pygospio dubia	1	50	—	—	—	—
Nerine sp.	—	—	1	2	—	—
Prionospio africana	1	1	—	—	—	—
Paraonis gracilis	1	10	—	—	—	—
Chaetopterus variopedatus	6	19	—	—	—	—
Phyllochaetopterus sp.	—	—	2	15	1	3
Audouinia filigera, var. *capensis*	1	11	—	—	—	—
Cirratulus cirratus	8	30	1	7	—	—
Cirratulus antarcticus	2	12	2	12	—	—
Cirratulus afer	1	2	—	—	—	—
Dodecaceria concharum	1	1	—	—	—	—
Heterocirrus caput-esocis, var. *capensis*	1	6	—	—	—	—
Tharyx epitoca	1	1	2	2	—	—
Tharyx sp.	1	3	2	12	—	—
Stylarioides kerguelarum	1	65	2	7	—	—
Stylarioides swakopianus	1	4	—	—	—	—
Flabelligera affinis	4	6	1	1	—	—
Flabelligera luctator	1	2	—	—	—	—
Flabelligera pennigera	3	7	—	—	—	—
Flabelligera mundata	1	1	—	—	—	—
Brada villosa	—	—	2	2	—	—
Brada mammillata	—	—	1	3	—	—
Pycnoderma congoense	1	1	—	—	—	—
Scalibregma inflatum	3	5	1	1	—	—
Capitella capitata	1	1	—	—	—	—
Capitella capitata, var. *antarctica*	1	4	—	—	—	—
Notomastus latericeus	2	5	—	—	—	—
Notomastus lineatus	—	—	1	1	—	—
Ammotrypane breviata	—	—	1	9	—	—
Travisia olens	2	3	—	—	—	—
Travisia kerguelensis	1	3	2	6	2	10
Travisia kerguelensis, var. *gravieri*	—	—	2	12	—	—
Kesun abyssorum	—	—	—	—	1	1
Maldane decorata	1	8	—	—	—	—
Maldane sarsi, var. *antarctica*	—	—	3	3	4	33
Rhodine intermedia	3	7	3	12	—	—
Lumbriclymenella robusta	2	2	—	—	1	3
Clymenella minor	2	5	—	—	—	—
Clymene kerguelensis	1	2	1	1	—	—
Clymene yungi	6	12	4	6	1	1
Asychis amphiglypta	1	1	4	101	1	80
Nicomache lumbricalis	1	2	—	—	—	—
Nicomache sp.	1	1	1	3	—	—
Axiothella antarctica	—	—	2	3	—	—
Owenia fusiformis	1	20	—	—	—	—
Gunnarea capensis[2]	1	3	—	—	—	—
Idanthyrsus armatus	9	25	—	—	—	—
Idanthyrsus pennatus	1	4	—	—	—	—
Sternaspis scutata	1	3	6	240	3	83
Sternaspis scutata, var. *africana*	2	15	—	—	—	—
Pectinaria sp.	1	1	—	—	—	—
Amage sculpta	—	—	1	7	1	1
Melinna cristata	1	1	—	—	—	—
Phyllocomus crocea	1	1	1	5	—	—
Neosabellides elongatus	2	2	—	—	—	—
Amphicteis gunneri	1	1	—	—	—	—
Amphicteis gunneri, var. *antarctica*	3	7	7	27	2	6
Amphicteis gunneri, var. *japonica*	1	1	—	—	—	—
Terebella ehlersi	1	2	3	19	—	—
Loimia medusa	1	6	—	—	—	—
Loimia montagui	1	1	1	2	—	—
Pista mirabilis	1	5	—	—	—	—
Pista corrientis	1	1	—	—	1	2
Leaena abranchiata, var. *antarctica*	—	—	2	11	—	—
Leaena collaris	—	—	1	1	—	—
Neoleprea streptochaeta	1	4	1	1	—	—
Lanicides vayssieri	4	10	1	1	—	—
Amphitrite kerguelensis	1	2	1	1	1	1
Amphitrite edwardsi	3	7	—	—	—	—
Nicolea chilensis	5	92	—	—	—	—
Nicolea macrobranchia	1	2	—	—	—	—
Artacama proboscidea	3	11	1	2	—	—
Thelepus cincinnatus	10	78	7	62	1	1
Thelepus setosus	10	24	—	—	—	—
Polycirrus kerguelensis	3	4	2	5	—	—
Polycirrus hamiltoni	2	7	—	—	—	—
Polycirrus hesslei	1	8	—	—	—	—
Lysilla loveni, var. *macintoshi*	1	5	2	4	—	—
Hauchiella tribullata	—	—	1	3	—	—
Terebellides minutus	1	1	2	14	—	—
Terebellides longicaudatus[3]	1	7	2	7	—	—
Sabella pavonina	1	1	—	—	—	—
Potamilla antarctica	15	93	4	20	1	20
Bispira magalhaensis	2	3	—	—	—	—
Dasychone violacea	1	1	—	—	—	—
Dasychone natalensis[4]	1	4	—	—	—	—
Dasychone nigromaculata	1	8	—	—	—	—
Hypsicomus torquatus	1	1	—	—	—	—
Euratella puncturata[2]	1	5	—	—	—	—
Euchone pallida	—	—	5	57	2	2
Jasmineira scotti	1	1	—	—	—	—
Serpula vermicularis	8	96	2	11	1	3
Serpula loveni	1	6	—	—	—	—
Hydroides norvegica	1	1	—	—	—	—
Vermiliopsis notialis	1	2	—	—	—	—
Vermiliopsis glandigerus	1	4	—	—	—	—
Vermiliopsis richardi, var. *fauveli*	1	3	—	—	—	—

[1] 1 : 1. 278–500 m.

[2] Shore coll.

[3] 1 : 1. 278–500 m.

[4] Beach coll.

SUMMARY

The total number of benthic species for which the depth is recorded is 217, and of these only 207 are used in the following analysis, the remainder being incapable of inclusion in the chosen categories. These 207 species were caught in 770 hauls; and if we see how many species, and how many hauls belonging to these species, are confined to any one of the given categories of depth, and, calculating what percentage they constitute of the total number of species and hauls, compare them each with the others, we may be able to form a rough estimate of the relative species density at the various depths. In the following analysis the first three depth columns represent the same categories as those in the preceding table; the fourth column of the analysis, "0–350 m.," represents a combination of the first two columns of the table, i.e. species with representatives both between 0 and 175 m. and between 175 and 350 m.; the fifth column of the analysis, "0–350 m. and below," represents a combination of all three columns of the table, i.e. species with representatives between 0 and 175 m., between 175 and 350 m. and below 350 m.; the sixth column of the analysis, "Between 175–350 m. and below," represents a combination of the second and third columns of Table III and needs no explanation.

TABLE III

	Depth					
	0–175 m.	Between 175–350 m.	Below 350 m.	Between 0–350 m.	Between 0–350 m. and below	Between 175–350 m. and below
No. of species	116	21	5	42	18	5
No. of hauls	216	35	5	210	281	23
Percentage of total number of species	56 %	10 %	2 %	20 %	9 %	2 %
Percentage of total number of hauls	28 %	5 %	0·6 %	27 %	37 %	3 %

It is noteworthy that for almost the same number of hauls (28 per cent. of the total as against 27 per cent.) nearly three-fifths of the total number of species were confined to above the 175 m. line, as against one-fifth with representatives both above and below the 175 m. line.

Pelagic species

In Table IV, opposite, the bathymetrical range of the pelagic species is shown by the arrangement in parallel columns of the minimum and maximum depths at which each species was found. Where there is only one record, this is set down in the minimum depth column.

The sign (–0) after the depth indicates that the net, though fishing for the duration of the station at the recorded depth, was hauled open to the surface. The possibility is, therefore, not excluded that the organisms contained in it were caught during its passage to a higher level.

TABLE IV

	Minimum depth	Maximum depth
Podarmus atlanticus	300 (–0) m.	—
Sheila bathypelagica	850–1100 m.	—
Lagisca hubrechti	450–550 (–0) m.	2500–2000 m.
Nectochaeta caroli	110–0 m.	200–230 (–0) m.
Macellicephala sp.	155–178 m.	—
Antinoë pelagica	50–0 m.	238–270 m.
Lopadorhynchus brevis	200–230 (–0) m.	—
Lopadorhynchus krohnii, var. *simplex*	56 (–0) m.	450–550 (–0) m.
Vanadis longissima	100 (–0) m.	800–1000 (–0) m.
Vanadis formosa	52 m.	2000 (–0) m.
Torrea candida	104 m.	100–150 (–0) m.
Callizona angelini	100–150 (–0) m.	300 (–0) m.
Greeffia oahuensis	125–225 (–0) m.	250 (–0) m.
Rhynconerella fulgens	250–100 m.	—
Alciopa cantrainii	125–225 (–0) m.	800–1000 (–0) m.
Tomopteris carpenteri	0–5 m.	250–100 m.
Tomopteris septentrionalis	10 m.	250–100 m.
Tomopteris cavallii	1000 (–0) m.	—
Tomopteris nisseni	100–120 (–0) m.	1000 (–0) m.
Tomopteris kempi	0–10 m.	—
Sagitella kowalewskii	110–0 m.	2000 (–0) m.
Sagitella cornuta	320–450 m.	—
Sagitella lobifera	1000 (–0) m.	2500–2000 m.
Typhloscolex mülleri	250–100 m.	—
Travisiopsis sp.	2500–2000 m.	—

ECOLOGICAL

Table V, with the number of specimens and the number of hauls of each species arranged in parallel columns under each of the several kinds of bottom, shows within the scope of the present material what species are confined to any one kind of bottom, to what extent other species not so confined display an increase or decrease in numbers per haul in passing from one kind of bottom to another and, consequently, their relative density on the several kinds of bottom. Although the present material forms a wholly insufficient basis for generalisation, repeated observations of this nature should reveal the kind of bottom on which a species or group of species is most dense and, therefore, their optimum bottom. If to this were added a knowledge of their optimum depth, we should possess some of the factors constituting at a given latitude their optimum habitat.

The nature of the bottom is taken from the observations made by the naturalists and recorded in the Station List 1925–1927 (*Discovery Reports*, I, pp. 1–140). For the purposes of the table I have simplified their classification of the bottom deposits: grey or green mud is treated as mud without qualification; "sand, stones and rock" is treated as "sand and stones"; "mud, sand and stones" is treated as "mud and sand," and so on. In the table there are eight categories of bottom deposit used: mud, sand, stones, rock, mud and sand, mud and stones, mud and rock, sand and stones.

The number of species or varieties having a record of the kind of bottom on which they were found is 168.

TABLE V

Species	Mud		Sand		Stones		Rock		Mud and sand		Mud and stones		Mud and rock		Sand and stones	
	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens
Hermodice carunculata, var. *didymobranchiata*	—	—	—	—	—	—	—	—	1	15	—	—	—	—	—	—
Eurythoë complanata	—	—	1	25	—	—	—	—	—	—	—	—	—	—	—	—
Eurythoë chilensis	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Paramphinome australis	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Euphrosyne arctia	3	4	—	—	—	—	—	—	1	1	1	2	1	1	—	—
Aphrodite alta	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laetmonice producta	8	69	—	—	—	—	2	26	1	2	5	29	—	—	—	—
Hermadion ferox	3	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hermadion magalhaensi	—	—	6	34	—	—	—	—	—	—	1	1	1	1	1	38
Macellicephala sp.	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Eulagisca corrientis	1	1	—	—	—	—	1	1	—	—	1	1	—	—	—	—
Eunoë opalina	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eucrantha mollis	1	4	—	—	—	—	2	3	—	—	—	—	—	—	1	1
Polyeunoa laevis	6	31	5	54	—	—	3	4	1	1	4	50	—	—	1	5
Polynoë antarctica	1	1	5	8	—	—	—	—	—	—	—	—	—	—	—	—
Harmothoë magellanica	6	85	3	4	1	6	4	22	1	5	5	32	1	12	2	4
Harmothoë spinosa[1]	2	11	10	23	—	—	1	1	2	6	4	4	—	—	2	8
Harmothoë exanthema	—	—	1	1	—	—	—	—	—	—	—	—	—	—	1	5
Harmothoë anderssoni	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Harmothoë crosetensis	—	—	—	—	—	—	1	1	—	—	3	3	—	—	—	—
Harmothoë impar, var. *notialis*	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Harmothoë kerguelensis	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Harmothoë (Barrukia) cristata	1	1	—	—	—	—	—	—	—	—	2	3	—	—	—	—
Harmothoë (Barrukia) curviseta	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Antinoë setobarba	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Antinoë antarctica	5	33	—	—	—	—	—	—	—	—	2	2	—	—	—	—
Antinoë epitoca	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eupanthalis tubifex	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polyodontes mortenseni	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Leanira incisa	1	1	—	—	—	—	—	—	1	3	—	—	—	—	—	—
Eteone sculpta	—	—	2	2	—	—	—	—	—	—	—	—	—	—	2	4
Eteone rubella	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phyllodoce patagonica	5	9	1	1	—	—	—	—	1	1	1	1	1	4	—	—
Phyllodoce bowersi	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phyllodoce oculata	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Phyllodoce longipes	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Austrophyllum charcoti	1	3	—	—	—	—	—	—	—	—	2	3	—	—	—	—
Genetyllis polyphylla	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—
Eulalia magalhaensis	3	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eulalia anomalochaeta	2	3	—	—	—	—	—	—	—	—	2	2	—	—	—	—
Eulalia picta	1	5	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Pionosyllis comosa	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pionosyllis maxima	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eusyllis kerguelensis	1	1	2	4	—	—	—	—	—	—	—	—	—	—	—	—
Trypanosyllis gigantea	3	3	3	5	—	—	—	—	1	2	4	4	1	1	3	8
Trypanosyllis gemmulifera	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Autolytus charcoti	1	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Autolytus gibber	1	3	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Grubea clavata	—	—	—	—	—	—	—	—	1	4	—	—	—	—	—	—
Syllis prolixa	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Syllis brachychaeta	—	—	—	—	1	4	—	—	—	—	1	8	—	—	—	—
Syllis brachycola	—	—	2	3	—	—	—	—	—	—	1	1	—	—	—	—
Syllis variegata[2]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Syllis sclerolaema	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Nereis kerguelensis[3]	2	13	2	2	—	—	—	—	1	3	2	4	—	—	2	2
Nereis eugeniae[4]	—	—	5	26	—	—	—	—	—	—	—	—	—	—	1	1
Nereis typhla	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Nereis pelagica	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—

[1] Five specimens off derelict hull.

[2] Four specimens from a buoy.

[3] Eighteen specimens off kelp.

[4] Sixteen specimens off kelp.

Species	Mud		Sand		Stones		Rock		Mud and sand		Mud and stones		Mud and rock		Sand and stones	
	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens
Platynereis magalhaensis[1]	—	—	1	3	—	—	—	—	1	2	—	—	—	—	—	—
Leptonereis loxechini	2	15	3	23	—	—	2	36	—	—	2	8	—	—	1	17
Nereis hardyi	—	—	2	10	—	—	—	—	—	—	—	—	—	—	2	16
Nephthys macrura	9	93	—	—	—	—	2	5	3	7	7	28	2	5	1	7*
Nephthys lyrochaeta	—	—	—	—	—	—	—	—	1	4	—	—	—	—	—	—
Nephthys serratifolia	—	—	3	8	—	—	—	—	—	—	—	—	—	—	—	—
Ephesia antarctica	—	—	—	—	—	—	1	4	—	—	—	—	—	—	—	—
Glycera capitata	5	14	3	14	1	1	1	2	1	2	5	6	1	2	1	1
Glycera convoluta	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—
Goniada congoensis	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eunice pennata	—	—	1	1	—	—	4	127	—	—	1	55	—	—	1	1*
Eunice murrayi	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—
Nicidion kinbergii	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Diopatra cuprea	1	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epidiopatra hupferiana	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Rhamphobrachium ehlersi	—	—	—	—	—	—	1	2	—	—	—	—	—	—	—	—
Onuphis eremita	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Onuphis notialis	—	—	—	—	—	—	2	6	—	—	1	2	1	4	—	—
Onuphis quadricuspis	—	—	2	8	—	—	—	—	—	—	—	—	—	—	1	2
Onuphis iridescens[2]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leptoecia antarctica	—	—	—	—	—	—	—	—	—	—	1	60	—	—	—	—
Lumbrinereis magalhaensis[3]	5	42	1	4	—	—	2	2	2	26	5	11	1	18	—	—
Lumbrinereis africana	—	—	—	—	—	—	—	—	1	4	—	—	—	—	—	—
Lumbrinereis heteropoda	—	—	—	—	1	3	—	—	1	2	—	—	—	—	—	—
Lumbrinereis tetraura	—	—	1	1	—	—	—	—	—	—	—	—	—	—	1	2
Lumbrinereis antarctica	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Augeneria tentaculata	2	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arabella iricolor	—	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—
Drilonereis filum	—	—	—	—	—	—	—	—	1	4	—	—	—	—	—	—
Drilonereis sp.	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—
Aricia marginata	2	84	—	—	—	—	—	—	2	10	—	—	—	—	—	—
Scoloplos mawsoni	1	3	—	—	—	—	—	—	—	—	1	8	—	—	—	—
Pygospio dubia	—	—	—	—	—	—	—	—	—	—	1	50	—	—	—	—
Nerine sp.	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prionospio africana	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Paraonis gracilis	—	—	—	—	—	—	—	—	—	—	1	10	—	—	—	—
Chaetopterus variopedatus	1	1	2	10	—	—	—	—	—	—	—	—	—	—	1	1
Phyllochaetopterus sp.	2	15	—	—	—	—	1	3	—	—	—	—	—	—	—	—
Cirratulus cirratus	1	7	—	—	1	1	—	—	1	9	—	—	—	—	1	1
Cirratulus antarcticus	3	12	—	—	—	—	—	—	—	—	2	12	—	—	—	—
Cirratulus afer	—	—	—	—	—	—	—	—	1	2	—	—	—	—	—	—
Tharyx epitoca	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tharyx sp.	—	—	—	—	—	—	—	—	—	—	1	4	—	—	—	—
Stylarioides kerguelarum	3	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stylarioides swakopianus	—	—	—	—	1	4	—	—	—	—	—	—	—	—	—	—
Kesun abyssorum	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Maldane decorata	1	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maldane sarsi, var. *antarctica*	4	4	—	—	—	—	—	—	—	—	2	31	—	—	—	—
Rhodine intermedia	3	16	—	—	—	—	1	1	—	—	1	1	1	1	—	—
Lumbriclymenella robusta	—	—	—	—	—	—	—	—	—	—	2	4	1	1	—	—
Clymenella minor[1]	—	—	2	5	—	—	—	—	—	—	—	—	—	—	—	—
Clymene kerguelensis	1	1	—	—	—	—	—	—	—	—	—	—	1	2	—	—
Clymene yungi	3	5	—	—	—	—	2	2	—	—	5	9	1	3	—	—
Asychis amphiglypta	2	37	—	—	—	—	—	—	—	—	3	43	—	—	—	—
Nicomache sp.	—	—	—	—	—	—	—	—	—	—	1	1	1	3	—	—
Axiothella antarctica	1	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Idanthyrsus armatus[4]	—	—	4	8	—	—	—	—	—	—	—	—	—	—	3	7
Sternaspis scutata[5]	6	303	—	—	—	—	—	—	1	3	1	3	1	2	—	—
Sternaspis scutata, var. *africana*	1	14	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Pectinaria sp.	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Amage sculpta	1	7	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Melinna cristata	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—

[1] Four specimens off kelp.

[2] Two specimens, diatomic ooze.

[3] Two specimens off kelp.

[4] Four specimens from derelict hull.

[5] Fifteen specimens, mud and diatomic ooze.

* Diatomic ooze.

TABLE V (*contd.*)

Species	Mud		Sand		Stones		Rock		Mud and sand		Mud and stones		Mud and rock		Sand and stones	
	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens	Hauls	Specimens
Flabelligera affinis[1]	1	1	2	3	—	—	—	—	—	—	1	2	—	—	—	—
Flabelligera pennigera	1	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Flabelligera mundata	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Brada villosa	1	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Brada mammillata	—	—	—	—	—	—	1	3	—	—	—	—	—	—	—	—
Pycnoderma congoense	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scalibregma inflatum	1	1	—	—	—	—	—	—	—	—	1	1	1	3	—	—
Capitella capitata, var. *antarctica*[2]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Notomastus latericeus	—	—	—	—	—	—	1	1	—	—	—	—	1	4	—	—
Notomastus lineatus	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Ammotrypane breviata	1	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Travisia olens	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Travisia kerguelensis	—	—	—	—	—	—	3	15	—	—	1	3	—	—	1	1*
Travisia kerguelensis, var. *gravieri*	1	9	—	—	—	—	—	—	—	—	—	—	1	3	—	—
Phyllocomus crocea	—	—	1	1	—	—	—	—	—	—	1	5	—	—	—	—
Neosabellides elongatus	—	—	—	—	—	—	1	1	—	—	1	1	—	—	—	—
Amphicteis gunneri	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Amphicteis gunneri, var. *antarctica*	6	22	—	—	—	—	1	2	4	13	—	—	—	—	—	—
Amphicteis gunneri, var. *japonica*	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Terebella ehlersi	2	13	—	—	—	—	—	—	—	—	1	2	—	—	—	—
Loimia medusa	—	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—
Pista mirabilis	—	—	—	—	—	—	1	5	—	—	—	—	—	—	—	—
Pista corrientis	—	—	1	1	—	—	—	—	—	—	1	2	—	—	—	—
Leaena abranchiata, var. *antarctica*	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leaena collaris	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Neoleprea streptochaeta	1	1	1	4	—	—	—	—	—	—	—	—	—	—	—	—
Lanicides vayssieri	1	1	—	—	—	—	—	—	1	1	—	—	1	2	—	—
Amphitrite kerguelensis	—	—	1	1	—	—	—	—	—	—	1	1	1	2	—	—
Amphitrite edwardsi	—	—	1	1	—	—	—	—	—	—	—	—	—	—	1	4
Nicolea chilensis	—	—	1	2	1	52	—	—	—	—	—	—	—	—	2	18
Artacama proboscidea	—	—	—	—	—	—	—	—	2	2	1	2	1	9	—	—
Thelepus cincinnatus	6	69	1	2	1	2	2	19	—	—	3	11	1	20	—	—
Thelepus setosus[3]	—	—	4	9	—	—	—	—	1	1	—	—	—	—	1	1
Polycirrus kerguelensis	3	7	—	—	—	—	—	—	1	1	1	1	—	—	—	—
Polycirrus hamiltoni	—	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—
Polycirrus hesslei	—	—	1	8	—	—	—	—	—	—	—	—	—	—	—	—
Lysilla loveni, var. *macintoshi*	2	6	—	—	—	—	—	—	—	—	1	3	—	—	—	—
Terebellides minutus	1	8	—	—	—	—	—	—	—	—	1	6	—	—	—	—
Terebellides longicaudatus	2	4	—	—	—	—	—	—	—	—	1	4	1	7	—	—
Sabella pavonina	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Potamilla antarctica	5	24	5	12	—	—	1	1	—	—	4	32	—	—	2	4
Dasychone nigromaculata	—	—	1	8	—	—	—	—	—	—	—	—	—	—	—	—
Euratella puncturata[4]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Euchone pallida	4	55	—	—	—	—	1	1	—	—	1	1	—	—	—	—
Jasminiera scotti	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Serpula vermicularis	1	1	—	—	3	40	1	3	—	—	3	15	1	40	—	—
Hydroides norvegica	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Vermiliopsis notialis	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—

[1] Two specimens from derelict hull.

[2] Four specimens off kelp.

[3] Nine specimens off kelp, two off derelict hull.

[4] Five specimens from a buoy.

* Diatomic ooze.

SUMMARY

The following analysis shows what percentage of the total number of species occurring on all bottoms the species confined to any one of the several kinds of bottom constitute; and also in how many of the total number of hauls on all bottoms the species so confined were caught. It should, however, be borne in mind that many of the species occur on more than one kind of bottom and are, therefore, not included.

	Mud	Sand	Stones	Rock	Mud and sand	Mud and stones	Mud and rock	Sand and stones
Ratio of hauls appertaining to species occurring on only one kind of bottom to total number of hauls on all bottoms (%)	6	3½	1	1	2	1½	⅕	⅕
Ratio of species occurring on only one kind of bottom to total number of species occurring on all kinds of bottom (%)	15½	11	3½	3	6½	5½	½	½

ANIMAL ASSOCIATIONS

Examples of the following species were found living in association with other animals:

Trypanosyllis gigantea, *Autolytus charcoti*, *Syllis brachycola* and *Syllis brachychaeta* inside a colony of *Cephalodiscus nigrescens*, living in the tubules of the polypides.

Nereis kerguelensis and *Polyeunoa laevis* in association with an Alcyonarian.

Hermadion magalhaensi and *Harmothoë spinosa* from a Tubularian colony.

Platynereis magalhaensis from the carapace of a *Paralomis*.

Idanthyrsus armatus found attached to large Molgulidae.

Hermadion magalhaensi from a *Chaetopterus* tube.

SYSTEMATIC ACCOUNT

Family AMPHINOMIDAE

Genus **Hermodice**, Kinberg

Hermodice carunculata (Pallas) var. **didymobranchiata** (Baird).

Fauvel, 1914, pp. 113–116, pl. viii, figs. 22–27, 31–32.
Amphinome didymobranchiata, Baird, 1864, pp. 449–450, pl. xlv, figs. 1–7.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. Fifteen specimens.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One young specimen.

REMARKS. The largest specimen measures 42 mm. by 6 mm. including the feet, the smallest, the example from St. 283, only 11 mm. by 2 mm. The great majority have lost all their colour in spirit, but in two or three specimens there remain thin dark intersegmental bands on the back. The caruncle reaches back to the 4th chaetiger, and ventrally the first four chaetigers are involved with the mouth. The two branches of the gill are widely separated; the harpoon-shaped dorsal chaetae are few in number and difficult to find.

These specimens correspond closely to those described by Fauvel (*loc. cit.*) from St Thomas Island, Gulf of Guinea. Fauvel regards Baird's *Amphinome didymobranchiata* from Ascension Island as a variety of the widely distributed *Hermodice carunculata*.

The chief differences between Baird's species and a typical *H. carunculata* are as follows: in Baird's species the gill is more ramified, and the two branches are widely separated; the dorsal chaetae are longer, finer and softer than in *H. carunculata*, and the harpoon-shaped notopodial chaetae are comparatively few in number. There is nothing I can add to Fauvel's careful comparative study of the two forms.

Genus **Eurythoë**, Kinberg

Eurythoë complanata (Pallas).

Eurythoë alcyonia, Gravier, 1901, pp. 248–254, pl. ix, figs. 140–143; pl. x, figs. 144–146.

St. 1. 16. xi. 25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′ 00″ W. 16–27 m. Gear **NRM**. Bottom: coral sand and shell. Twenty-five specimens.

St. 2. 17. xi. 25. Clarence Bay, Ascension Island, Catherine's Point and Collyer Point. Shore collection, on buoy lifted from an inshore position near landing place. Two specimens.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One young specimen.

Remarks. Of these specimens of Pallas' widely distributed species the largest measures 30 mm. by 4 mm., and the smallest 11 mm. by 2 mm. including the feet. They are at once distinguished from Fauvel's *Eurythoë laevisetis* from St Thomas Island, Gulf of Guinea, by the presence of harpoon-shaped chaetae in the dorsal branch of the foot. *E. complanata* has already been recorded from Annobon by Augener (1918, p. 88). Gravier's account of this species (as *E. alcyonia*) is probably the most complete.

Eurythoë chilensis, Kinberg.

Kinberg, 1857, pp. 35–36, pl. xii, fig. 9.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear DL. Bottom: stones. One specimen.

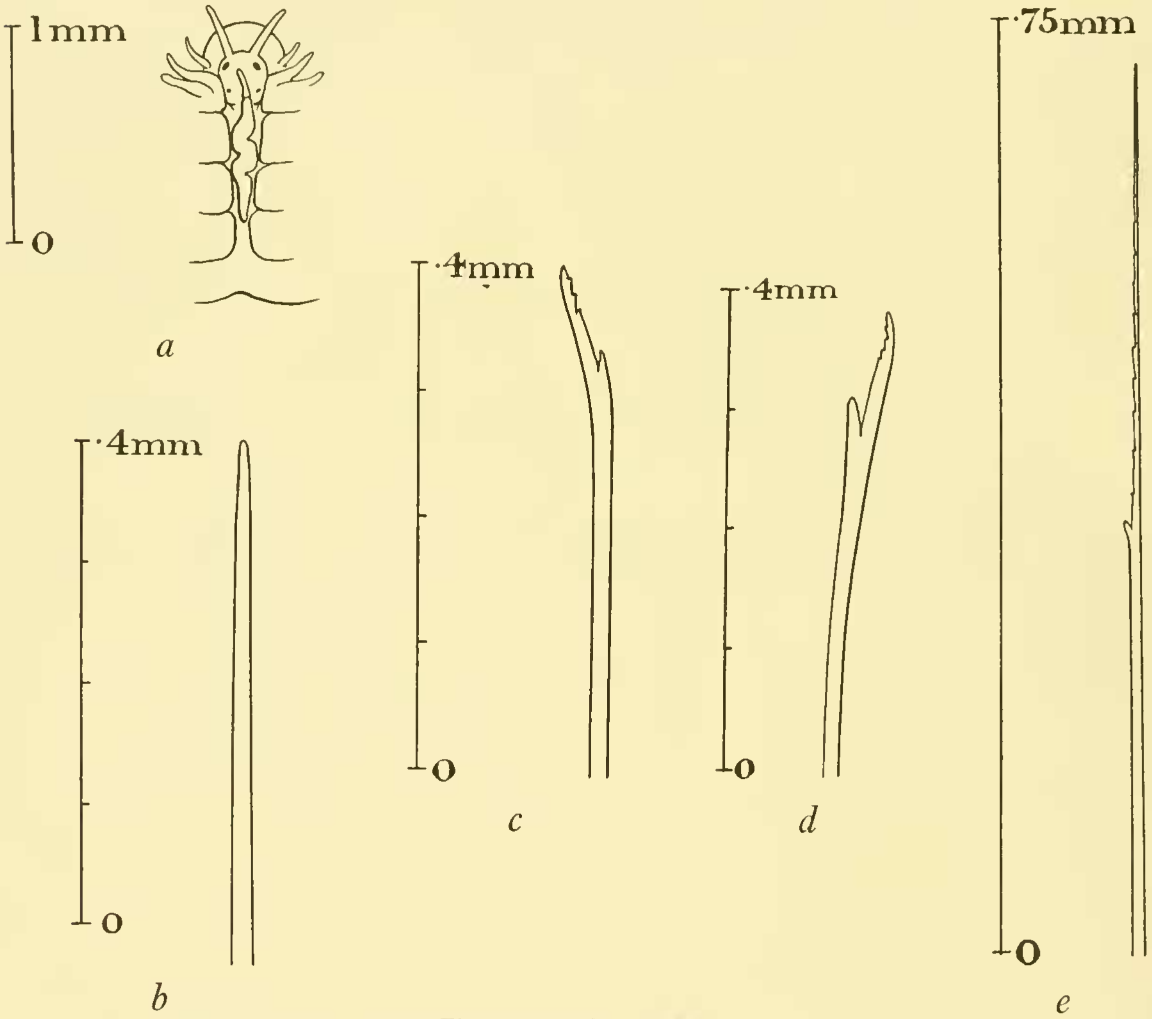

Fig. 1. *Eurythoë chilensis*.
a. Anterior end seen from above. *b*. Smooth type of dorsal bristle. *c*. Toothed type of dorsal bristle. *d*. Ventral bristle. *e*. Capillary ventral bristle.

Description. This specimen measures 10 mm. by 4 mm. including the feet. The colour in spirit is a pale yellow with white bristles, and the body is somewhat flattened dorso-ventrally. The prostomium (Fig. 1, *a*) is semilunar in front with a more or less quadrangular cushion behind. A pair of lateral tentacles is set far forward on this cushion, and behind them is the anterior pair of red reniform eyes. The posterior pair of minute round eye-spots is set at the back of the prostomial cushion, in such a manner that the two pairs of eyes are at the corners of a square. The small median tentacle is also set far back on the prostomial cushion just in front of the origin of the caruncle, which is a flexuous crest reaching to the 4th chaetiger. There is a pair of palps on the sides of the buccal lobe. The first three chaetigers are involved with the mouth. The gills are small, consisting of four or five digitiform processes; they begin on the 2nd chaetiger.

The feet are set widely apart, and the bristles are few. There is a dorsal cirrus articulated at its base and longer than the branchial processes; and a short ventral cirrus. The dorsal bristles are of four kinds: (1) toothed harpoon-chaetae similar to those figured by Kinberg (Fig. 9, *G*, *s*′), (2) straight, smooth chaetae (Fig. 1, *b*) similar in outline to the harpoon-chaetae, (3) bristles of moderate length with a lateral tooth and a number of widely spaced serrations going to the tip (Fig. 1, *c*), (4) a few (two or three) very long and fine capillary bristles with a lateral spur, finely hispid to the tip, and similar to that figured by Kinberg (Fig. 9, *G*, *s*). In some the lateral spur is more pronounced than that in Kinberg's figure.

The ventral chaetae are of two sorts: (1) numerous bristles of moderate length with a lateral tooth and a number of serrations reaching to the tip (Fig. 1, *d*), (2) one or two very fine and long capillary bristles with a lateral tooth and finely serrated to the tip (Fig. 1, *e*); these bristles are either absent or lost from a large percentage of the neuropodia. There is a lobular pygidium.

Remarks. My specimen agrees closely and in detail with Kinberg's description and figures except in the following details. Kinberg's figure (9, *B*) of the head shows the median tentacle and the caruncle set further forward on the prostomial pad than they are in my example, but this is corrected in his second figure (9, *B*″) of the head seen from in front. His two figures do not agree. Moreover, the caruncle reaches back to the 4th chaetiger in my specimen, and not to the 3rd, as in Kinberg's figure. He describes it however as "segmentum quintum attingens." Kinberg appears also to have overlooked the smooth type of straight dorsal chaeta, but unless the absence of teeth be noted, these might easily be confused with the harpoon-chaetae, which they closely resemble in outline.

The posterior end of my specimen is slightly damaged, but, as far as I can see, the pygidium is a rounded lobe rather than the large plate shown in Kinberg's figure (9, *x*). Horst (1912, p. 36) wrongly attributes a number of specimens from the Malay Archipelago to this species under a misapprehension of the characters of *E. chilensis*. Kinberg's figure 9, *G*, *s*″ represents the shorter type of dorsal bristle with the lateral tooth and serrated tip, and Horst writes, "The setae of our worms show a great resemblance to those of *E. chilensis* figured by Kinberg on Pl. xii, figs. 9, *G*, *u*, *s*″, *s*′ and *s*; however, I suggest that a mistake has crept into this delineation and that *s*″ should be *u* and also represents another kind of ventral bristle, for I never met with a dorsal bristle of this shape in the *Eurythoë*-species."

I am not aware that *E. chilensis* has been recorded since Kinberg's original description of an example from off Valparaiso. The common southern American form is *E. paupera*, Grube. It seems probable that *E. chilensis* is a southern cold water species carried north by the cold current, which might account for its occurrence in places as far apart as Valparaiso and Tristan da Cunha.

Genus **Chloeia**, Savigny

Chloeia viridis, Schmarda.

Schmarda, 1861, p. 144, pl. xxxv, figs. 295–305; Augener, 1925, p. 20.

Chloeia euglochis, Ehlers, 1887, pp. 18–24, pl. i, figs. 1 and 2; pl. ii, figs. 1–8; pl. iii, figs. 1–4.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

REMARKS. The single example of this species measures 32 mm. by 6 mm. excluding the feet. The segmental T-shaped markings consist of slender rather faded lines in place of the usual broad stripes. There are 28 chaetigers and the caruncle extends to the anterior edge of the 6th.

This specimen is similar to those described by Augener (1918, p. 94) as *Chloeia euglochis*, Ehlers from Goree Island, off Senegal. An examination of Schmarda's type has convinced Augener (1925, p. 20) that *C. euglochis* is synonymous with *C. viridis*, and I believe that *Chloeia parva*, Baird is also indistinguishable.

Genus **Notopygos**, Grube

Notopygos megalops, McIntosh.

McIntosh, 1885, p. 17, pl. i, fig. 1; pl. ii A, figs. 3 and 4.

Fauvel, 1923, p. 133, fig. 48 *i–n*.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

REMARKS. A single specimen, measuring 14 mm. by 3 mm. including the feet, and having 17 chaetigers. It is colourless except for the large black eyes. The caruncle reaches back to the 5th chaetiger and the branchiae begin on the 7th. The first three chaetigers are involved with the mouth. The chaetae are much damaged, but as far as can be seen they agree with McIntosh's and Fauvel's figures. The anus opens on the dorsal surface of the terminal segment between the pygidial styles. The regular segmental folding of the skin to form a sort of pattern on the back, which is apparent in McIntosh's type, is well shown in this specimen. This is the first record of this species from the African coast; it has previously been found at Bermuda and off the coast of Spain.

I think it probable that this species will prove to be the young form of *Notopygos crinita*, Grube from Ascension Island. As far as our present knowledge goes, the differences appear to be as follows: *N. megalops* is a much smaller form than *N. crinita*, measuring only 10–15 mm. in length and having 17–19 chaetigers, whereas *N. crinita* is recorded with a length of over 40 mm. and with 28 segments. In *N. megalops* the eyes are larger than in *N. crinita*, the gills are much smaller and begin further back on the body. Moreover, the anus opens on the last segment and not further forward as in *N. crinita*. This position of the anus is characteristic of young examples of *Notopygos*, and has no specific differential value, but it strengthens the presumption that in *N. megalops* we are dealing with a young form.

Genus Amphinome, Bruguières

Amphinome vagans (Savigny).

For synonymy see Chamberlin, 1919, p. 27.

29. x. 25. 11° 12′ N, 18° 30′ W. Found on floating cuttle-bone in company with *Lepas* and small gastropods. Twenty-five specimens.

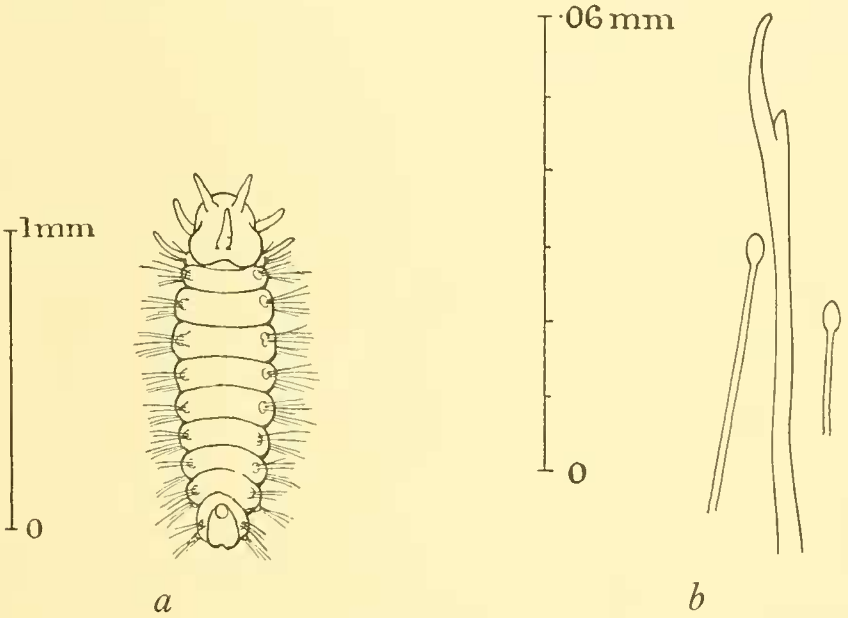

Fig. 2. *Amphinome vagans.*

a. Larva. *b.* Ventral bristles of Larva.

Remarks. Of the 25 specimens more than half are larvae: the largest example measures 8 mm. by 2 mm. including the feet, and the smaller of the larvae are about 1·25 mm. by ·5 mm. including the feet. The more mature of the specimens are typical except that the straight type of dorsal chaetae with denticulated edges is very scarce, and the denticulation so fine that it can only be seen under a high power.

This species is usually found on floating logs, etc., in conjunction with *Lepas*. The younger larvae (Fig. 2, *a*) have about 10 chaetigers, the gills are not yet developed, and the caruncle is not clearly differentiated. I cannot distinguish any eyes. There are five head appendages which are presumably homologous with those of the adult form. The dorsal and ventral cirri are small and papilliform, except the tentaculiform dorsal cirrus of the 1st chaetiger. I can distinguish no straight denticulated chaetae in the upper ramus of the foot, and the bristles of the lower ramus (Fig. 2, *b*) have a secondary tooth, absent in the adult. There is a large prominent anus on the dorsal surface of the last segment.

By the time a length of 2 mm. is reached with 12 chaetigers, two and three branched gills are developed.

Genus **Paramphinome**, M. Sars

Paramphinome australis, n.sp.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

Description. Length 46 mm., breadth 4 mm. anteriorly and 2 mm. at the posterior end, both measurements excluding the feet. Colour in spirit a very pale yellow. The body is long and vermiform and flattened dorso-ventrally: behind the gill region the intersegmental constrictions are very marked giving the body a moniliform appearance. The head is rounded in front and sends a roughly cordiform prolongation backwards to the posterior border of the 1st chaetiger which at the sides extends forward as far as the base of the palps. There are no eyes. A pair of small lateral tentacles is situated on either side of the front of the prostomium and there is a median tentacle at the same level as the dorsal cirrus of the 1st chaetiger. Below and to the side of the lateral tentacles is a pair of small tapering palps. The dorsal cirrus of the 1st chaetiger is twice as long as the head appendages and slightly longer than the ventral cirrus.

There are 13 pairs of gills and they begin on the 4th chaetiger. They are arborescent and richly branched (Fig. 3, *a*) and grow out of the back just behind the notopodial lobe. From the 7th to the 15th chaetiger they almost meet in the mid-dorsal line.

The two fairly prominent lobes of the feet are widely separated (Fig. 3, *b*) the notopodium being actually dorsal and the neuropodium ventro-lateral. Except for the 1st chaetiger the cirri are very small and almost rudimentary; the dorsal cirrus is just behind the notopodial lobe and the ventral below the neuropodium.

On the 1st chaetiger below the dorsal cirri on either side is a pair of large curved chitinous hooks. These can be seen under a dissecting microscope, and a wish to preserve the single type specimen as intact as possible prevents me from removing them for detailed study.

The bristles of the feet are exceedingly fragile and so much damaged that they render a satisfactory study of them very difficult. In the dorsal lobe there are two kinds of bristles: (1) short moderately stout smooth spear-like bristles (Fig. 3, *c*), and (2) a few very fine capillary bristles proximally smooth and distally delicately serrated on one side (Fig. 3, *d*). In the ventral lobe the bristles are of three kinds: (1) a large number of extremely delicate capillary chaetae in which the lower part is smooth and the upper finely denticulated on one side only (Fig. 3, *e*); (2) near the ventral cirrus are a few knife-shaped short bristles with a small spur and a row of teeth reaching to the tip

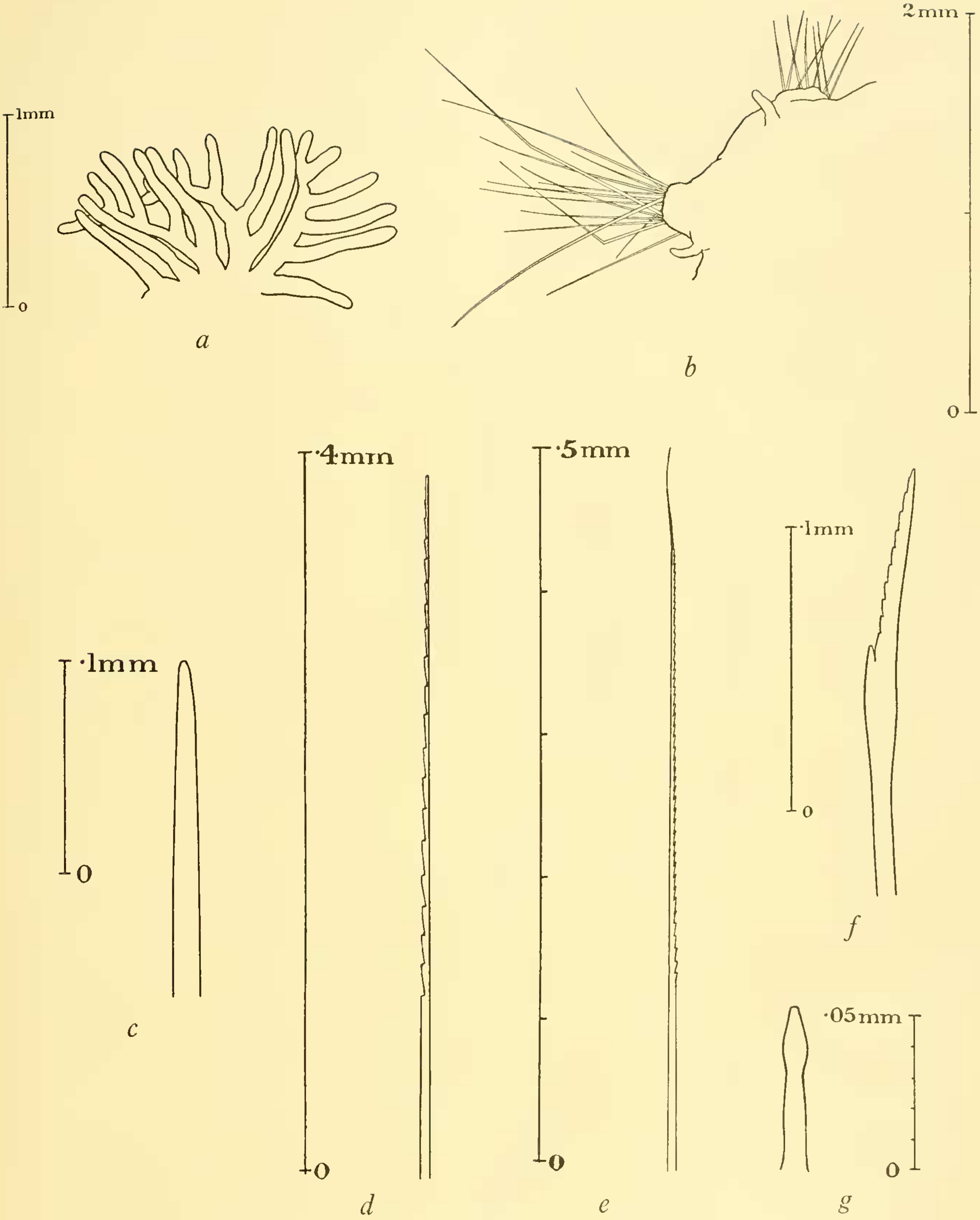

Fig. 3. *Paramphinome australis.*

a. Gill. *b.* Middle foot. *c.* Dorsal bristle. *d.* Dorsal bristle. *e.* Ventral bristle. *f.* Ventral bristle. *g.* Ventral bristle.

(Fig. 3, *f*); (3) a few short stout acicular chaetae with expanded tips (Fig. 3, *g*). The anus opens on the ventral surface of the last segment.

REMARKS. I believe this to be the first record of this genus in southern waters. It differs from *Paramphinome pulchella*, M. Sars, of which an excellent account is given by G. O. Sars (*Remarkable forms of animal life*, vol. 1, pp. 45–49, pl. iv, figs. 19–35), in many particulars, amongst others in the number of gill-pairs.

According to G. O. Sars the fine capillary ventral chaetae (Fig. 34, *c*) in his *P. pulchella* have a lateral spur at the base of the serrations. I cannot find this in my Antarctic specimen, but in some of the bristles the lowest tooth appears to project more than the rest. It is possible that in the damaged condition of the bristles in my example the lateral spur may have worn away, or be broken off.

Genus **Euphrosyne**, Savigny

Euphrosyne capensis, Kinberg.

Kinberg, 1857, p. 37, pl. xii, fig. 14.
McIntosh, 1885, pp. 1–5, pl. ii, fig. 5; pl. i A, figs. 1–3.

24. vii. 26. Salamander Beach, Saldanha Bay, South Africa. Shore collection. Three specimens.

REMARKS. The largest example measures 28 mm. by 8 mm. including the feet. The body is composed of 50–55 chaetigers and the slender caruncle reaches to the 7th chaetiger. The first four chaetigers are involved with the mouth. There are 10–11 branchial trunks, much branched and ending in leaf-shaped tips, and the lower dorsal cirrus is situated between the 2nd and 3rd most dorsal tufts. The chaetae are well figured by McIntosh. This species is very common around the Cape.

Euphrosyne arctia, Johnson.

Johnson, 1897, p. 159, pl. v, figs. 5–7.
? *Euphrosyne armadilloides*, Ehlers, 1901, p. 37, pl. i, figs. 6–8.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One specimen.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **N 4–T**. Bottom: grey mud. One specimen.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. One specimen.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Two specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1 15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Two specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS** and **NCS–T**. Two specimens.

The larger specimens measure about 11 mm. by 8 mm. including the feet, and the smaller about 5 mm. by 3 mm. The number of chaetigers is between 17 and 21. The body is oval and rather squat, and the colour in spirit is a pale yellow with white bristles. The median tentacle is short and thick. The posterior eyes are large and the anterior are partly hidden behind the front of the buccal folds: the mouth reaches to the anterior border of the 5th chaetiger. The caruncle is high, and apparently composed of a single lobe superficially divided by longitudinal grooves running along both sides; it reaches to the anterior border of the 6th chaetiger.

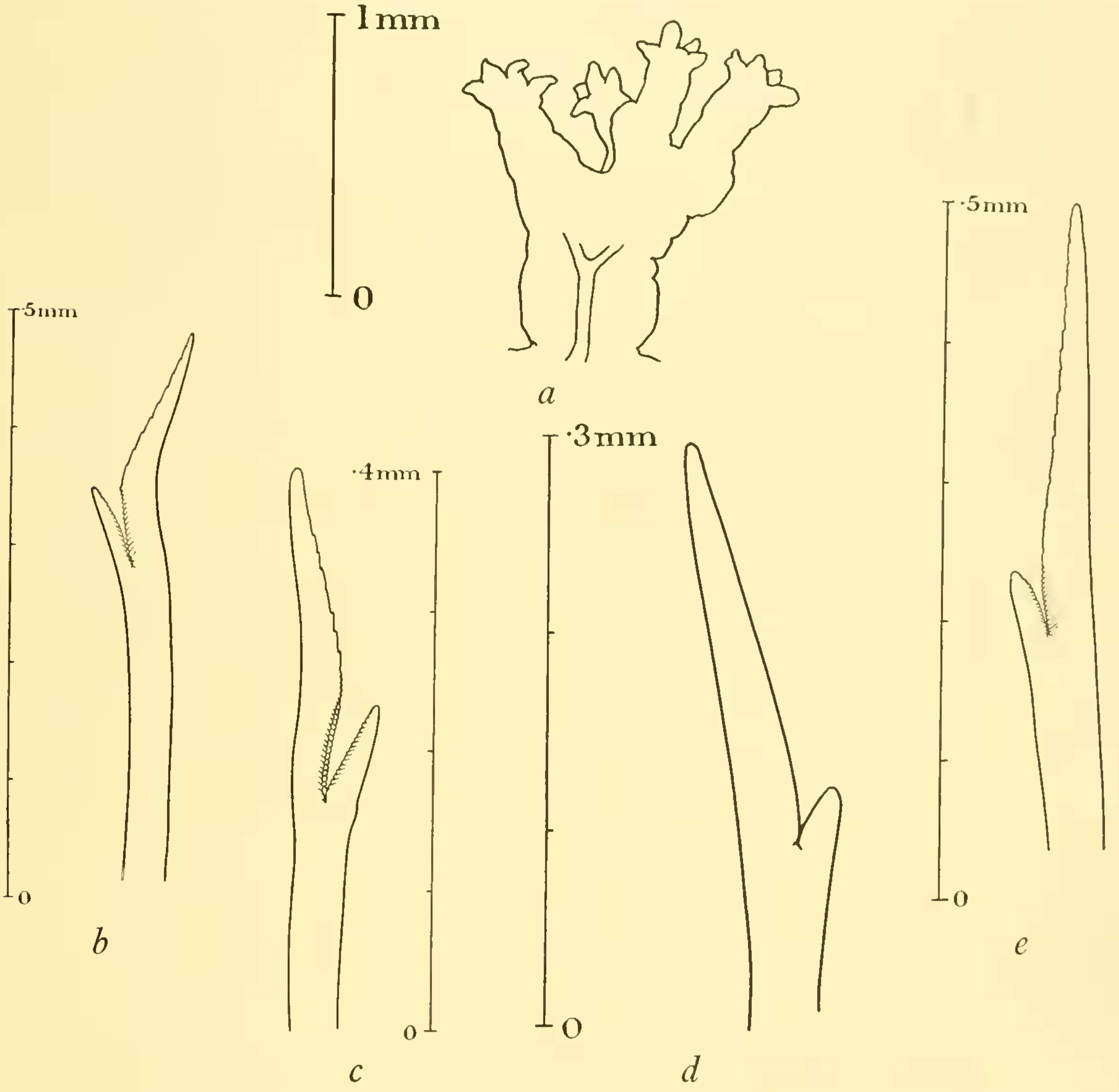

Fig. 4. *Euphrosyne arctia.*

a. Gill. *b.* "Ringent" bristle. *c.* "Ringent" bristle. *d.* Smooth dorsal bristle. *e.* Intermediate dorsal bristle.

The branchiae begin on the 1st chaetiger and are arranged in transverse rows of five trunks on either side. These trunks (Fig. 4, *a*) branch four times and end in curious tufts exactly as figured by Johnson (*loc. cit.* Fig. 5). The upper of the two dorsal cirri are on the inside of the rows of gills, and the lower between the 2nd and 3rd most dorsal trunks. The ventral cirri lie behind the ventral bristle-bundles.

The dorsal bristles are of two and perhaps of three kinds: (1) ringent chaetae (Figs. 4, *b* and 4, *c*) which vary in the extent to which the long arm is flexed; (2) smooth stout bifid bristles (Fig. 4, *d*); (3) a few bristles intermediate in type between the "ringents" and the smooth "bifids" (Fig. 4, *e*): in these there are striae in the fork, and the small arm is relatively shorter than in the ringents. In the majority of examples but not in all, the long arm of the "ringent" and the "intermediate" chaetae is delicately serrated to just below the tip. These serrations vary widely in their distinctness in the different specimens, and in a few they cannot be seen. This may be a function of the state of preservation of the bristles.

The ventral chaetae are simple bifids of two sizes exactly as figured by Johnson. The anus is large and ventrally placed.

REMARKS. These Antarctic specimens agree in detail with Johnson's description of an example from 100 fathoms depth in Monterey Bay, California, except that Johnson figures no serrations on the long arm of the ringent chaetae; these may have been absent, as they are in several of the Antarctic specimens. Moreover, he makes no mention of the "intermediate" type of chaetae: they are not clearly separable from the "ringents," and might easily be overlooked.

I am unable to decide whether this species, to which I believe the Antarctic specimens to belong in spite of the wide differences in locality and habitat between them and Johnson's type, is the same as *E. armadilloides*, Ehlers, which has a wide Antarctic distribution. Ehlers is of the opinion that his species is close to both *E. arctia*, Johnson and *E. armadillo*, M. Sars. Now Ehlers' *E. armadilloides* has broad foliaceous tips to its branchiae and a secondary tooth to the long arm of the bifid chaetae: I cannot quite reconcile the curious tufted gill-ends described by Johnson with those of *E. armadilloides*. M. Sars describes *E. armadillo* as having branchiae "apicibus ramulorum conico-acuminatis." This conveys a different type of branchia from that figured by Ehlers for *E. armadilloides*, and the *E. armadillo*, M. Sars of McIntosh (1900, Pl. xxv, fig. 2) and of Fauvel (1923, fig. 49, *O*) has long finger-shaped branchial extremities. As far as the branchiae go, *E. armadilloides* is nearer to *E. foliosa* than to *E. armadillo*.

Moore (1908, p. 340) hesitatingly attributes a specimen from Behm Canal, Alaska, to Johnson's species.

Family APHRODITIDAE

Genus **Aphrodite**, Linnaeus

Aphrodite alta, Kinberg.

Kinberg, 1857, p. 2, pl. i, fig. 1, *a–g*.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

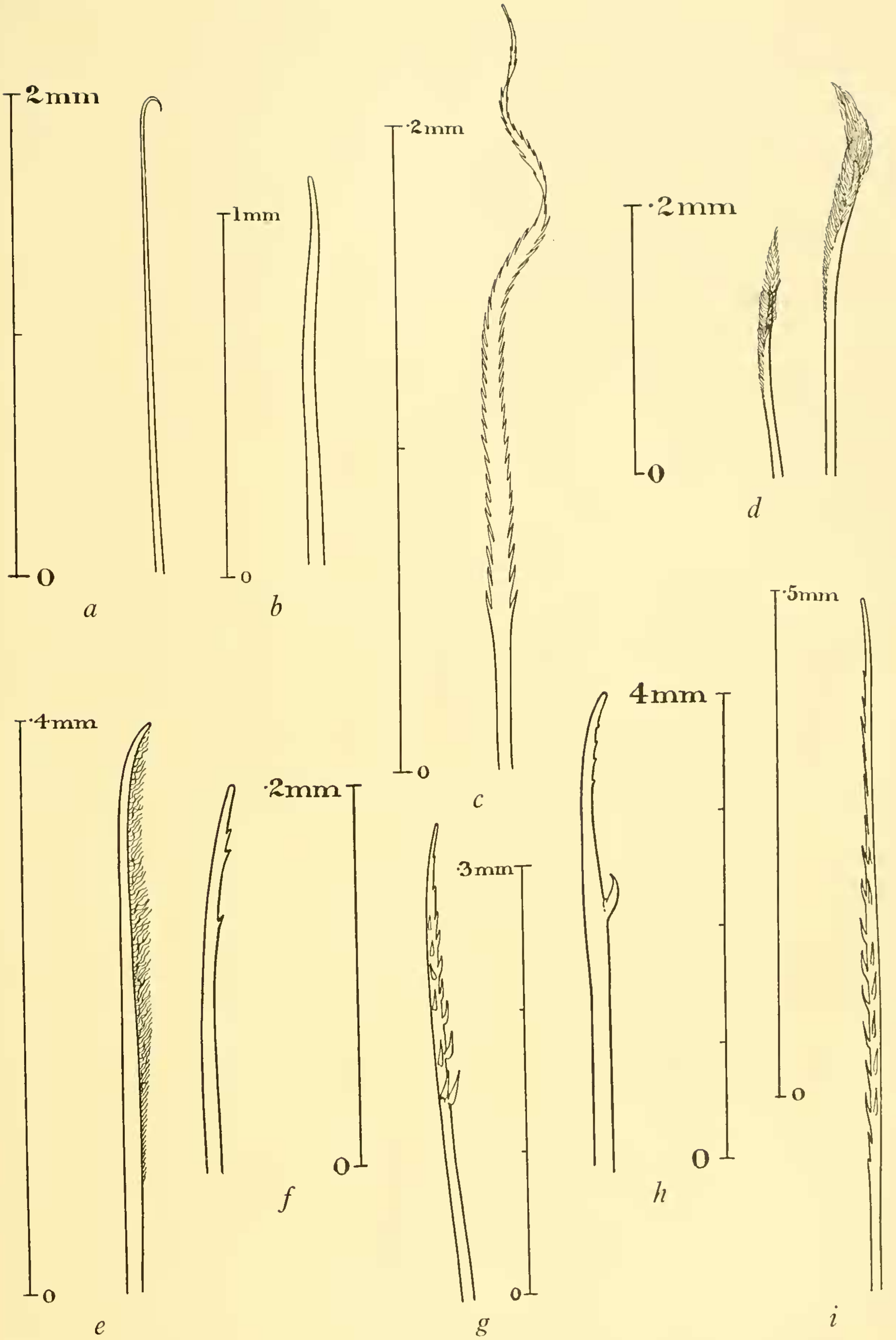

Fig. 5. *Aphrodite alta*.

a. Stout dorsal bristle. *b*. Upper bristle of second foot. *c*. Lower bristle of second foot. *d*. Ventral bristles of middle foot. *e*. Upper bristle of posterior foot. *f–i*. Posterior ventral bristles.

Description. Body oval, with flat papillated sole. The measurements are 25 mm. by 12 mm. including the feet. There are about 35 chaetigers. The back is a plaster of fine mud entangled with the felting, which is not penetrated by the dorsal bristles. On probing the felting these are seen as an occasional gleam of chestnut brown.

The prostomium is globular with a very short stout median tentacle, on either side of which is an ocular prominence without a trace of eyes. Below the tentacle there is a laterally compressed facial tubercle. The palps are stout, tapering and rather short, reaching to the 6th chaetiger (5th foot) when laid along the venter. The tentacular cirri are lost.

The dorsal bristles corresponding to the large bronzed bristles of the majority of species are very long, of a chestnut brown and end in a hook. They are nearly all broken off and lie loose, entangled in the felting. This may account for the fact that they do not project through the felting.

The ventral bristles of the first two chaetigers are of three types: (1) the upper are stout bronze-coloured bristles with slightly curved ends (Fig. 5, *b*); (2) a few middle bipinnate bristles; (3) the lower are similar to the middle bristles but more slender and spirally twisted (Fig. 5, *c*).

The ventral bristles of the middle feet of the body are of the usual three sizes, and all have slightly curved, heavily bearded ends (Fig. 5, *d*). The ventral bristles of the posterior feet change in the usual manner for the genus. The last half-dozen feet are so crowded together that I cannot count with certainty, but at about the 6th from the end the upper bristles (Fig. 5, *e*) are bearded much further down the shaft than in the middle body, and the middle and lower bristles are strongly denticulated. Further back there are a number of long, fine bristles with alternating teeth. In the last three or four feet of the body the ventral bristles are broken off. I have figured several types of posterior ventral bristle (Fig. 5, *f–i*).

In the middle feet the ventral cirri reach to the end of the foot, in the posterior feet they are longer.

Remarks. I have doubtfully assigned this example to Kinberg's species from off Rio Janeiro, on the ground that the dorsal felting conceals the dorsal bristles. The specimen is an *Aphroditella* or young *Aphrodite* and it is indistinguishable, as far as Horst's brief description goes (Horst, 1917, p. 49), from his *Aphroditella limosa* from a depth of 835 m. off the Malay Archipelago, except in the shape of the median tentacle. It is also very similar to *Aphrodite obtecta*, Ehlers from the coast of Florida and to the *A. talpa*, Quatrefages of Fauvel (Fauvel, 1925, pp. 140–144). It is distinguished from the *A. echidna*, Quatrefages of McIntosh from the Magellan region by the fact that in *A. echidna* the dorsal bristles project through the felting.

This is the first record of an *Aphrodite* from Antarctic waters.

Genus Laetmonice, Kinberg

Laetmonice producta, Grube.

Grube, 1877, p. 512.
Gravier, 1911, p. 80.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Five specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. Two specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. Four specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Six specimens.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. Two specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Twenty-five specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Twenty specimens.

St. 180. 11. iii. 27. 1·7 miles W of N point of Gand Island, Schollaert Channel, Palmer Archipelago. 160 m. Gear **DLH**. Bottom: mud and stones. Two young specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Thirty-two specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. Ten specimens.

St. 186. 16. iii. 27. Fournier Bay, Anvers Island, Palmer Archipelago. 64° 25′ 30″ S, 63° 02′ 00″ W. 295 m. Gear **DLH**. Bottom: mud. Two specimens.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. Five specimens.

St. WS 33. 21. xii. 26. 54° 59′ 00″ S, 35° 24′ 00″ W. 130 m. Gear **N 100–H**. Bottom: grey mud and stones. One specimen.

REMARKS. The variation in size ranges from young specimens with 30 chaetigers measuring about 10 mm. by 4 mm. excluding the feet, to huge forms with about 50 chaetigers and measuring 18 cm. by 3½ cm. Gravier records five specimens from King George Island, South Shetlands, and Ehlers an example from Kaiser William II Land.

In addition to a number of small organisms entangled with the bristles, as described by McIntosh (1885, p. 43) for his Kerguelen specimens, a sponge *Homaxinella supratumescens*, Topsent (I am indebted to my colleague, Mr M. Burton, for the name) is attached to the back of a specimen from St. 45. It is fixed to two adjacent notopodia and to the external edge of an elytron.

Family POLYNOIDAE

Genus **Hermadion**, Kinberg

Hermadion ferox, Baird.

Baird, 1865, p. 197.
Hermadion rouchi, Gravier, 1911, pp. 82–86, pl. iii, figs. 33–34; pl. iv, figs. 45–51; pl. vii, fig. 74.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear OTL. Bottom: grey mud. One specimen.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear OTL. Bottom: mud. Two specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear OTL. Bottom: mud. Two specimens.

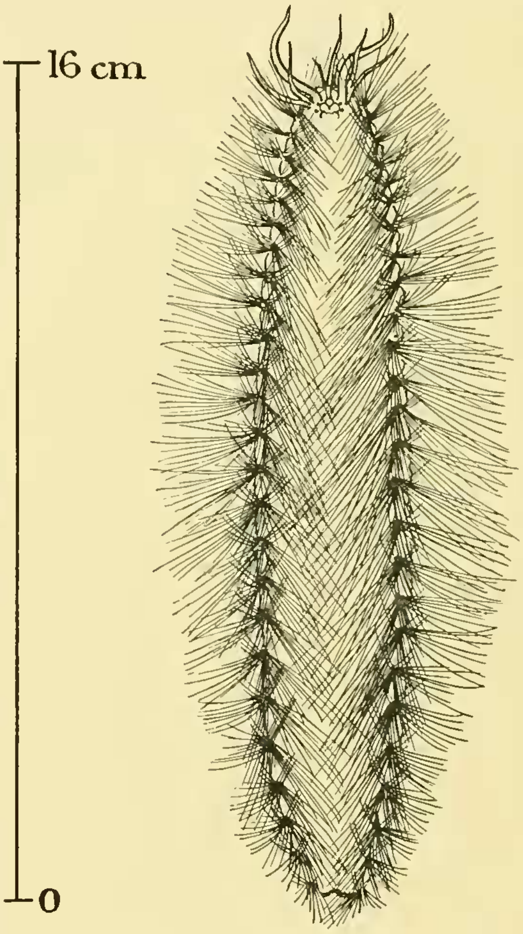

Fig. 6. *Hermadion ferox*. Dorsal view of entire specimen.

Remarks. I have examined Baird's type specimen and it agrees exactly with Gravier's admirable description and figures of *Hermadion rouchi*.

From St. 42 there is a gigantic example (Fig. 6) with 60 chaetigers which measures 16 cm. by 6 cm. including the bristles.

Benham (1921, pp. 46–50) makes a lengthy comparative study of this species and is at pains to show that it is distinct from *Lagisca crosetensis*. I have examined McIntosh's type and I endorse Benham's conclusions. There is a tendency for *H. ferox* to grade into *H. magalhaensi*. The chief differences between the two are the presence in *H. ferox* of the palisade of long dorsal bristles and of giant spines on the elytra. There is a considerable variation in the extent to which the dorsal bristles arch over the back, and in the smaller specimen from St. 42 the giant spines are confined to the posterior border of the elytra, and in the hinder segments are absent altogether. It is not impossible that *H. ferox* be the sexual stage of *H. magalhaensi*.

Hermadion magalhaensi, Kinberg.

Kinberg, 1857, p. 22, pl. vi, fig. 22.
Fauvel, 1916, pp. 423–426, pl. viii, figs. 10–11. With synonymy.
Harmothoë magalhaensi, Bergström, 1916, p. 276.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Ten specimens.

St. 52. 5. v. 26. Port William, East Falkland Island. 7·4 cables N 17° E of Navy Point. 17 m. Gear **LH**. Three specimens.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Sixty-three specimens.

St. 57. 16. v. 26. Port William, East Falkland Island. 5½ cables S 20° W of Sparrow Point. 15 m. Gear **BTS**. Two specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Two specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. Four specimens; one specimen from a Tubularian colony.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. Nine specimens.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Bottom: sand. One specimen taken from a *Chaetopterus* tube.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Thirty-eight specimens.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. Nine specimens.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. One specimen.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. The brown colour markings on the elytra vary greatly in intensity and are sometimes absent. The elytra are thickly covered with small tubercles. The dorsal chaetae are dark brown, stout, upturned and lightly pectinated: the ventral are unidentate and with well-developed scales. The last 12 to 14 chaetigers are left uncovered by the elytra.

From St. 140 is one specimen in which the dorsal bristles are to some extent arched over the back, as in *H. ferox*, Baird (*H. rouchi*, Gravier). This may be a sexual condition.

Genus **Podarmus**, Chamberlin

Podarmus atlanticus, n.sp.

St. 282. 12. viii. 27. 1° 11′ 00″ S, 5° 38′ 00″ E. 300 (–0) m. Gear **TYF**. One specimen.

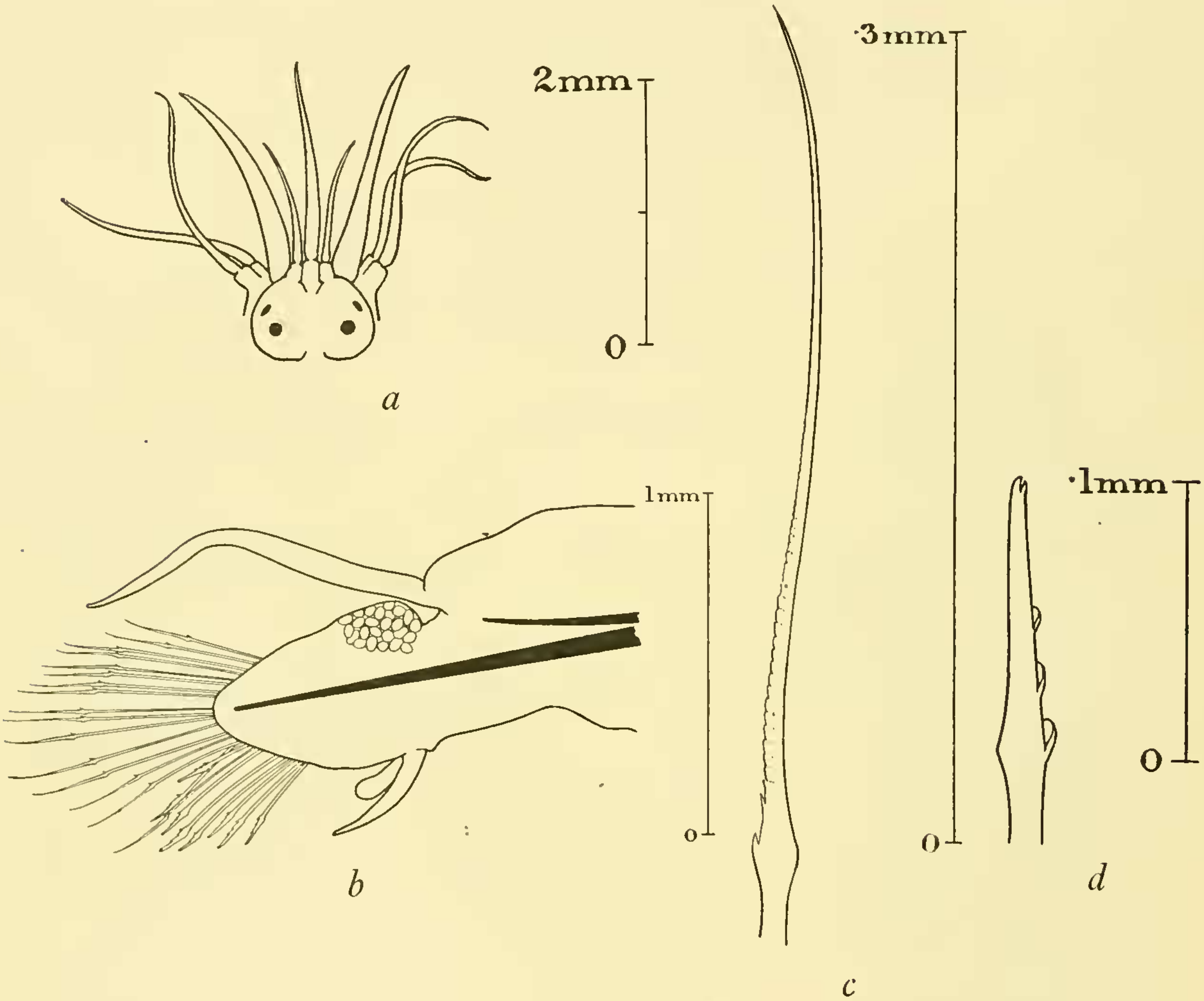

Fig. 7. *Podarmus atlanticus*.

a. Head. *b*. Middle foot. *c*. Upper and middle bristle. *d*. Lower bristle.

Description. The specimen measures 13 mm. by 2 mm. without the feet, and has about 45 chaetigers and 18 pairs of elytrophores. There is no colour.

The head (Fig. 7, *a*) is broader than long, somewhat rounded in shape, and with two pairs of small eyes set rather far back and to the side. The insertion of the lateral tentacles appears to be subterminal as in *Halosydna*, but of this I am not sure. The median tentacle is about of the same length as the long and rather slender palps, and it is longer than the lateral tentacles. The tentacular cirri are rather longer than the tentacles and there is a long ventral cirrus on the first foot. The elytrophore of the first foot is a cylindrical structure about half the length of the foot; the remaining elytrophores are conspicuous but not unusually prominent.

The dorsal cirri reach to the tips of the bristles and the ventral are shorter than the feet. The parapodia (Fig. 7, *b*) are biramous, the dorsal branch consisting of a small lobe containing a sheathed aciculum[1], but no bristles. The neuropodium has two rather prominent, bluntly conical lips of about the same length, between which the bristles are arranged in a vertical series.

The upper and middle bristles (Fig. 7, *c*) are long, fine-scaled capillaries ending in a delicate, whip-like tip. Below these are about a dozen much shorter bristles (Fig. 7, *d*), expanded towards the apex, toothed above the expansion and ending in a bidentate tip. The cylindrical clavate process, which adjoins the ventral cirrus, appears to be absent from the first four or five feet. It is an enlarged genito-nephridial papilla.

Remarks. This pelagic species is close to the *Podarmus ploa* of Chamberlin from Easter Island, but is distinguished by the bidentate character of its lower ventral bristles.

Genus Sheila, gen. nov.

Diagnosis. The lateral tentacles are inserted terminally as in *Lepidonotus*. There are 13 pairs of elytra inserted on segments 2, 4, 5, 7, 9, etc. The feet are biramous, but the dorsal ramus is reduced. The notopodial chaetae are delicate toothed capillaries, slightly finer than the neuropodials. These consist of long toothed capillaries, a few shorter and stouter toothed bristles ending in a blunt hook, and in the middle of the neuropodium a single giant bidentate hook. The genotype is bathypelagic.

Sheila bathypelagica, n.sp.

St. 256. 23. vi. 27. 35° 14′ 00″ S, 6° 49′ 00″ E. 850–1100 m. Gear TYF. One specimen.

Description. The specimen measures 9 mm. by 2 mm. without the feet: there are about 29 chaetigers and 13 pairs of elytrophores. In spirit the back is pale grey with rather faint transverse segmental bands of a darker colour interrupted in the middle line. The undersurface and the feet are a deep black; the tentacles and cirri are also black except at their tips, but the palps are a pale grey.

The head (Fig. 8, *a*) is longer than broad and bulged at the sides. The whole of the lateral surfaces are occupied by two pairs of large contiguous eyes with white centres and dark brown edges. The three tentacles leave the head at the same level, are all of the same length, about two-thirds that of the prostomium, and end in a flagelliform tip. Below the lateral tentacles is a pair of palps, each ending in a small mamilla; they are of about the same length as the tentacles but twice as thick. Set close to the side of the palps is a pair of tentacular cirri about twice the length of the other appendages. Palps, tentacles and cirri are smooth. All the elytra are lost.

The dorsal cirri are long, reaching almost to the tips of the bristles, and the ventral cirri are very short.

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[1] There is no etymological warrant for the form *aciculum* with plural in *a*: the Latin *acicula* is a feminine noun with plural in *ae*. The incorrect variant is, however, so firmly established as part of the English terminology of the Polychaeta that I prefer to retain it.

The feet (Fig. 8, *b*) are biramous, but the dorsal branch is reduced. On the top of the foot a sheathed aciculum makes a small projection, and with it is a bundle of about a dozen long, fine, toothed, capillary bristles.

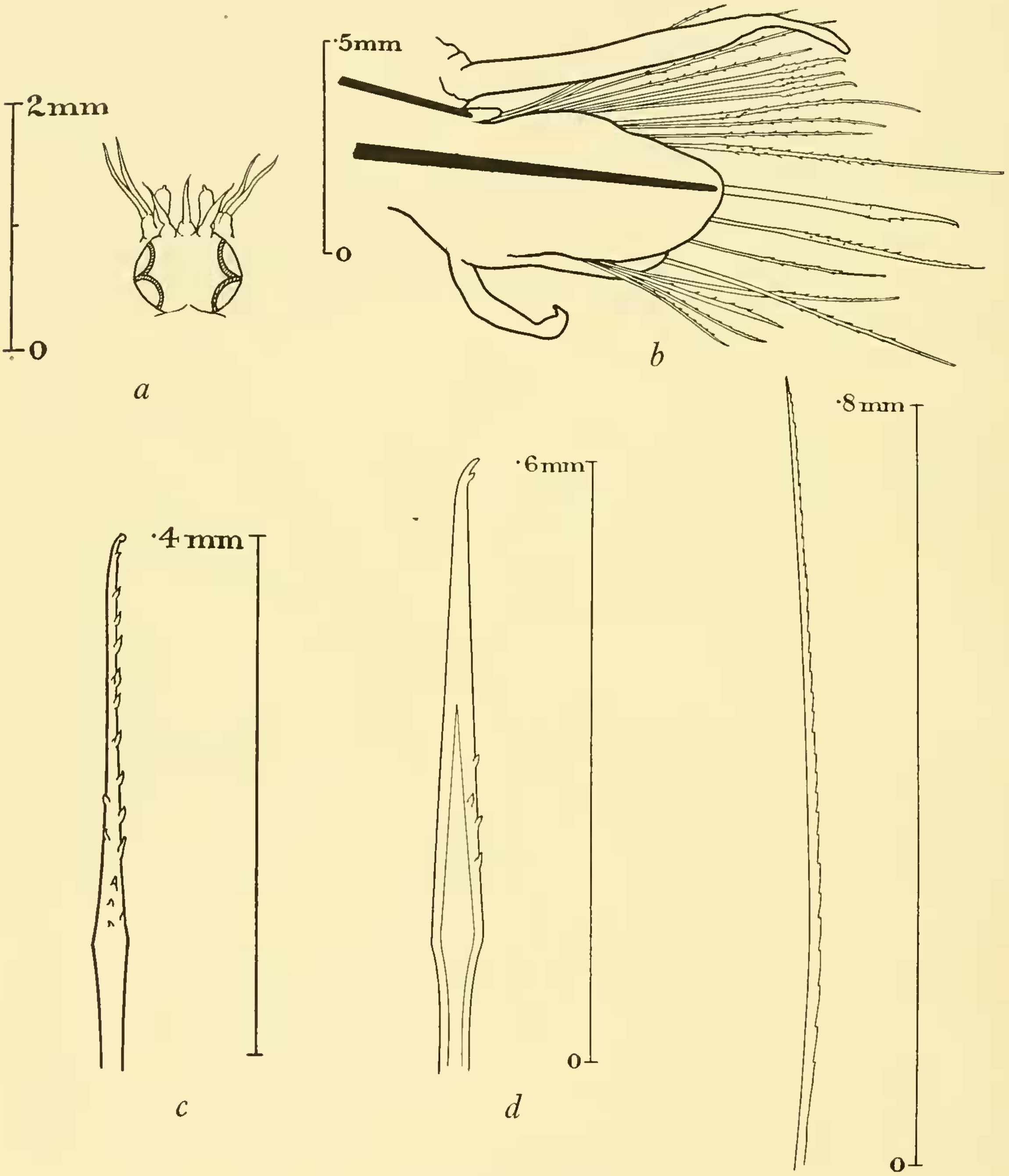

Fig. 8. *Sheila bathypelagica.*

a. Head. *b*. Foot. *c*. Short neuropodial bristle. *d*. Giant bristle. *e*. Ventral capillary bristle.

The ventral branch consists of two large bluntly conical lips from between which the bristles come out. The uppermost ventral bristles are similar to the dorsal but rather stouter; a little lower there are three or four much stouter and shorter toothed bristles, (Fig. 8, *c*) ending in a sort of blunt hook; below these again and in the centre of the foot is a single, gigantic, toothed, bidentate hook (Fig. 8, *d*). The lower ventral (Fig. 8, *e*) bristles are toothed capillaries similar to the upper, and there is a tendency for these to be stouter the nearer they are to the central giant hook. All the capillary chaetae are glassy and transparent, but the giant hook is bright yellow.

The pygidium is slightly damaged, so I cannot tell whether there were any styles or appendages.

REMARKS. I found myself unable to include this specimen within any known genus. Of the known pelagic genera, *Frenna*, *Quetieria*, *Drieschia*, *Plotolepis* and *Podarmus* are all without dorsal bristles; *Harmopsides* has a subtentacular cirrus and no notopodial chaetae, and many other distinctive characters; *Nectochaeta* has a different shaped head, feet and bristles, and *Macellicephala* has no lateral tentacles. The present specimen is probably the young pelagic stage of another species.

Genus **Lagisca**, Malmgren

Lagisca hubrechti (McIntosh).

Fauvel, 1923, p. 78, fig. 29 *a–k*.

St. 100. 3–4. x. 26. 33° 20′ 00″ to 33° 46′ 00″ S, 15° 18′ 00″ to 15° 08′ 00″ E. 2500–2000 m. Gear **TYF**. One specimen.

St. 169. 22. ii. 27. 60° 48′ 50″ S, 51° 00′ 20″ W. 1000–1100 m. Gear **TYF**. One specimen.

St. 267. 23. vii. 27. 24° 31′ 00″ S, 12° 15′ 30″ E. 450–550 (–0) m. Gear **TYF**. One specimen.

REMARKS. The three examples of this bathypelagic species correspond in detail to Fauvel's description. It is characterised by the transparent dorsal bristles, the long unidentate ventral bristles with their rows of scales and the large caudal appendage. It is remarkable to find it as far south as off the South Shetlands.

Genus **Malmgrenia**, McIntosh

? Malmgrenia micropoides, Augener.

Augener, 1918, pp. 146–148, pl. ii, fig. 21; pl. iii, fig. 43, text-fig. 8.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

REMARKS. This example is a macerated fragment without head or elytra. The feet and bristles seem to correspond to Augener's description and figures. The dorsal ramus is set far back, so that the tips of the bristles barely reach to the end of the ventral chaeta sac. Both rami are more or less pointed, and the lip of the ventral ramus is produced into a cirriform process (Fig. 9, *a*).

The dorsal bristles (Fig. 9, *b*) are less numerous and very much finer than the ventral. They resemble Augener's figure.

The ventral bristles (Fig. 9, *c*) are relatively broader than those figured by Augener, and the gap between the two terminal teeth less wide. Moreover, the uppermost ventral bristles are unidentate and the rest bidentate, a condition apparently exactly the reverse of that described by Augener, who records that the lowest ventral bristles sometimes lacked the second tooth.

It is not possible to attribute this fragment to a species with any certainty.

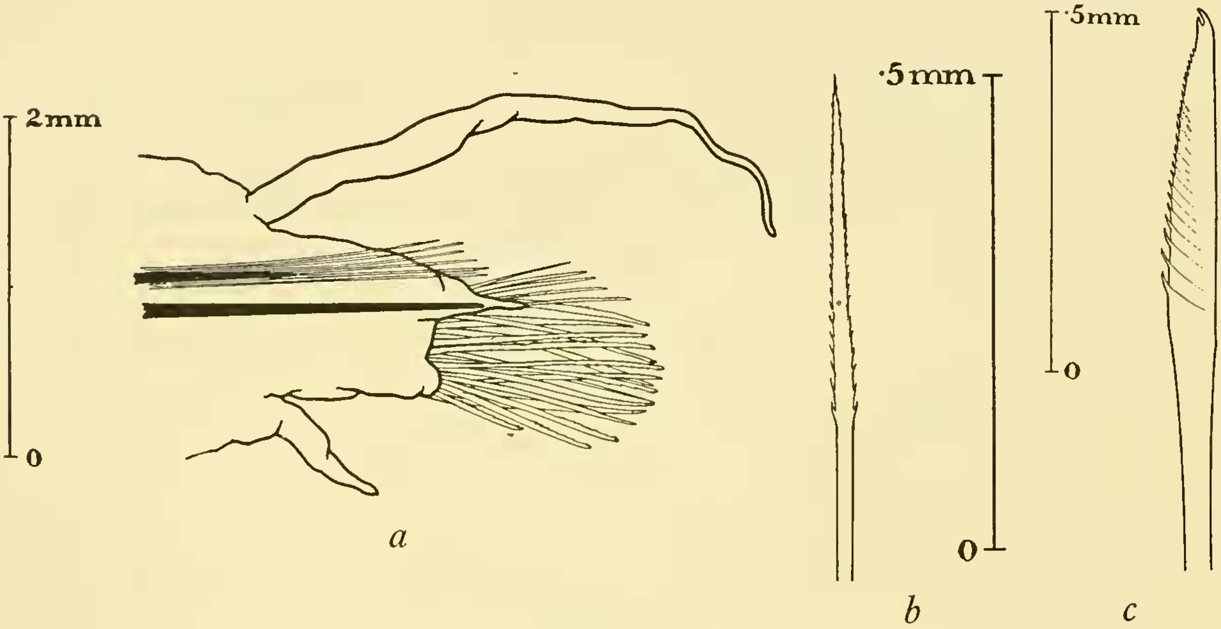

Fig. 9. ? *Malmgrenia micropoides*.
a. Foot. *b*. Dorsal bristle. *c*. Ventral bristle.

Genus **Nectochaeta**, Marenzeller

Nectochaeta caroli, Fauvel.

Fauvel, 1916, p. 39, pl. i, figs. 24–27; pl. ii, figs. 16–18; and 1923, p. 91, fig. 35 *a–f*.

St. 273. 31. vii. 27. 9° 38′ 00″ S, 12° 42′ 30″ E. 200–230 (–0) m. Gear **TYF**. Three specimens.
St. 276. 5. viii. 27. 5° 54′ 00″ S, 11° 19′ 00″ E. 110 (–0) m. Gear **N 100 B**. Twenty-nine specimens.

REMARKS. These specimens correspond so closely to Fauvel's description that there is very little I can add. The larger specimens have about 40 chaetigers and 16 pairs of elytrophores: they measure about 37 mm. by 2 mm. without the feet and 6 mm. including the feet. All the elytra are lost. In most of the specimens the huge cirrophores are larger anteriorly than behind. Up to about the 16th chaetiger they are longer than the feet; further back they are of about the same length. Up to the 11th to 13th feet the cirrophores are transparent; over the rest of the body they are filled with a pale brown, or grey, granular inclusion. On staining this shows itself to be glandular tissue with a granular secretion. The elytra are all lost. The notopodial aciculum is clearly visible in all the feet.

Genus Macellicephala, McIntosh

Macellicephala sp.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W. to 53° 58′ S, 36° 26′ W. 155–178 m. Gear NCS-T. Bottom: green mud and sand. One specimen.

Description. This much damaged specimen measures 21 mm. by 5 mm. without the feet. The back is irregularly splashed with purplish brown.

The prostomium is deeply incised in front but not so deeply as in *M. mirabilis*. There is no trace of eyes, and all the appendages are lost except a fairly short palp with an abrupt blunt end and a single tapering dorsal tentacular cirrus, as long as the prostomium is broad. The ventral cirrus of the first foot reaches to the end of the chaeta sac.

There are 17 feet and 9 pairs of elytrophores. The feet (Fig. 10, *a*) are biramous; the dorsal branch is reduced to a single long sheathed aciculum with, in the middle and posterior segments, one or two bristles lying in the tissue beside it. In a preparation of a posterior foot the end of one of these bristles projects clear of the tissue.

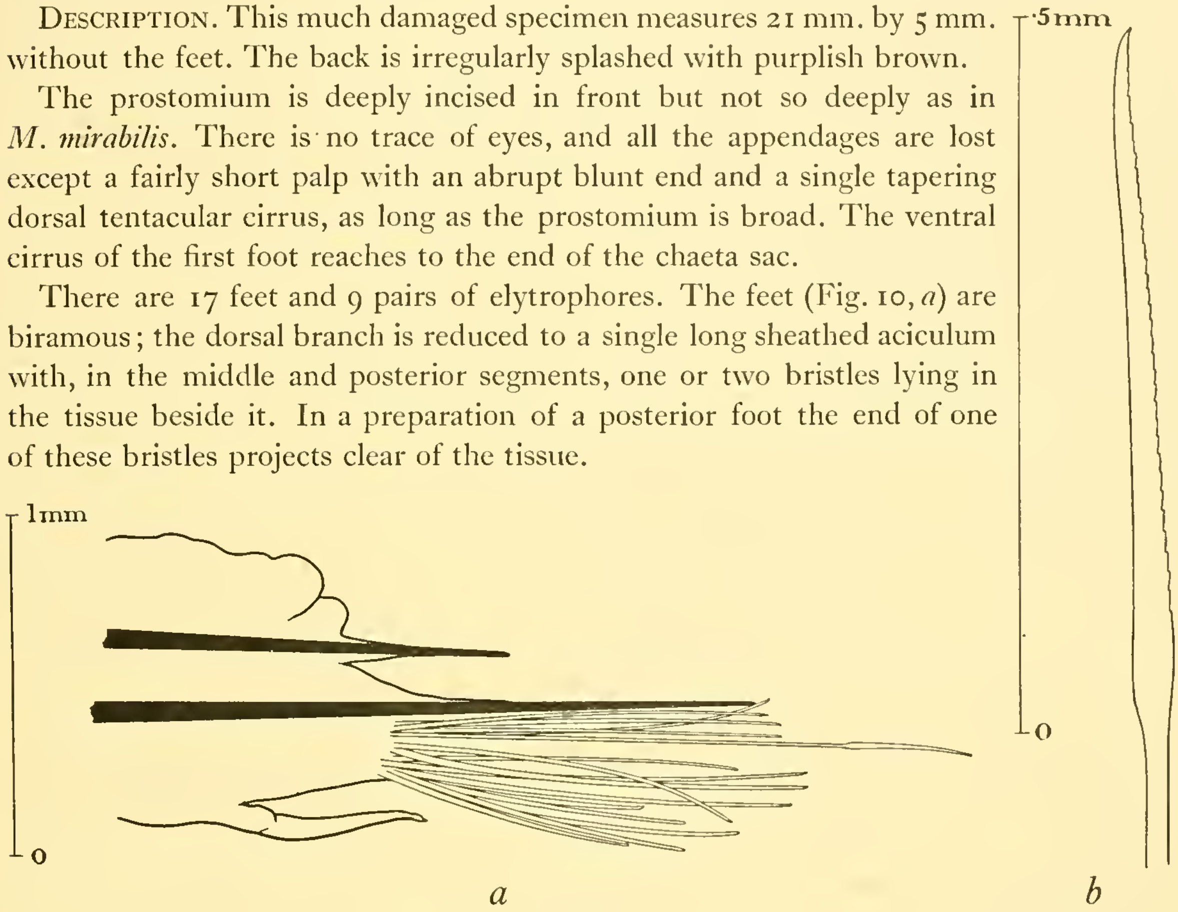

Fig. 10. *Macellicephala* sp.

a. Foot. *b*. Ventral bristle.

The ventral branch is slightly longer, shaped like a very narrow cone and ends in a long sheathed aciculum: it contains a bundle of transparent bristles (Fig. 10, *b*) lightly serrated on one side only. The ventral cirri are small, not reaching to the end of the foot.

Remarks. *Macellicephala* is a pelagic genus. Unfortunately this example is so much damaged that its specific attribution is impracticable. It differs from *M. mirabilis*, McIntosh, from New Zealand, in the shape of the prostomium, and in the absence of eyes and of a dorsal bristle bundle. The shape of the feet is similar to that of Fauvel's *M. incerta* and *M. affinis*, but it differs from these in the character of its bristles.

Genus **Euphione**, McIntosh

Euphione elisabethae, McIntosh.

McIntosh, 1885, pp. 62–64, pl. ix, fig. 3; pl. xvii, fig. 7; pl. xviii, fig. 10; pl. viii A, figs. 3–6.

St. M. Cape Trawler. 9. vii. 27. 33° 42′ 00″ S, 17° 29′ 00″ E. 310–402 m. Gear **OTC**. Found on coral. Three specimens.

REMARKS. These examples measure about 40 mm. by 17 mm. In one of them the very large type of rotate tubercle on the elytra is absent.

Genus **Scalisetosus**, McIntosh

Scalisetosus pellucidus (Ehlers).

Fauvel, 1923, p. 74, fig. 27 *a–f*.
Scalisetosus communis, Ehlers, 1913, p. 447.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Two specimens.

St. MS 82. 6. ix. 26. Off Salamander Point, Saldanha Bay, South Africa. 7–14 m. Gear **BTS**. One specimen.

REMARKS. Three small specimens. Ehlers records the presence of this species at Simon's Town.

Genus **Lepidonotus**, Leach

Lepidonotus semitectus, Stimpson.

Ehlers, 1913, p. 447.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Five specimens.

REMARKS. All the specimens are small, measuring between 10 and 15 mm. in length. The first pair of scales and the anterior half of the second are much lighter in colour than the rest, which are either mottled with dark grey or, as in three of the examples, of a uniform deep orange colour.

The German South Polar Expedition collected specimens of this species at Simon's Town.

Genus **Eulagisca**, McIntosh

Eulagisca corrientis, McIntosh.

McIntosh, 1885, pp. 91–93, pl. xiii, fig. 4; pl. vii A, figs. 3, 4.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. One fragmentary specimen.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Two fragmentary specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. One complete specimen.

Description. The single complete example measures 60 mm. by 27 mm. including the feet. Body colour in spirit is a pale yellow and the back is strongly but irregularly splashed with purple: the tentacles and the tentacular and dorsal cirri are spotted with purple and there is a purple band round the top of the elytrophores and dorsal cirrophores.

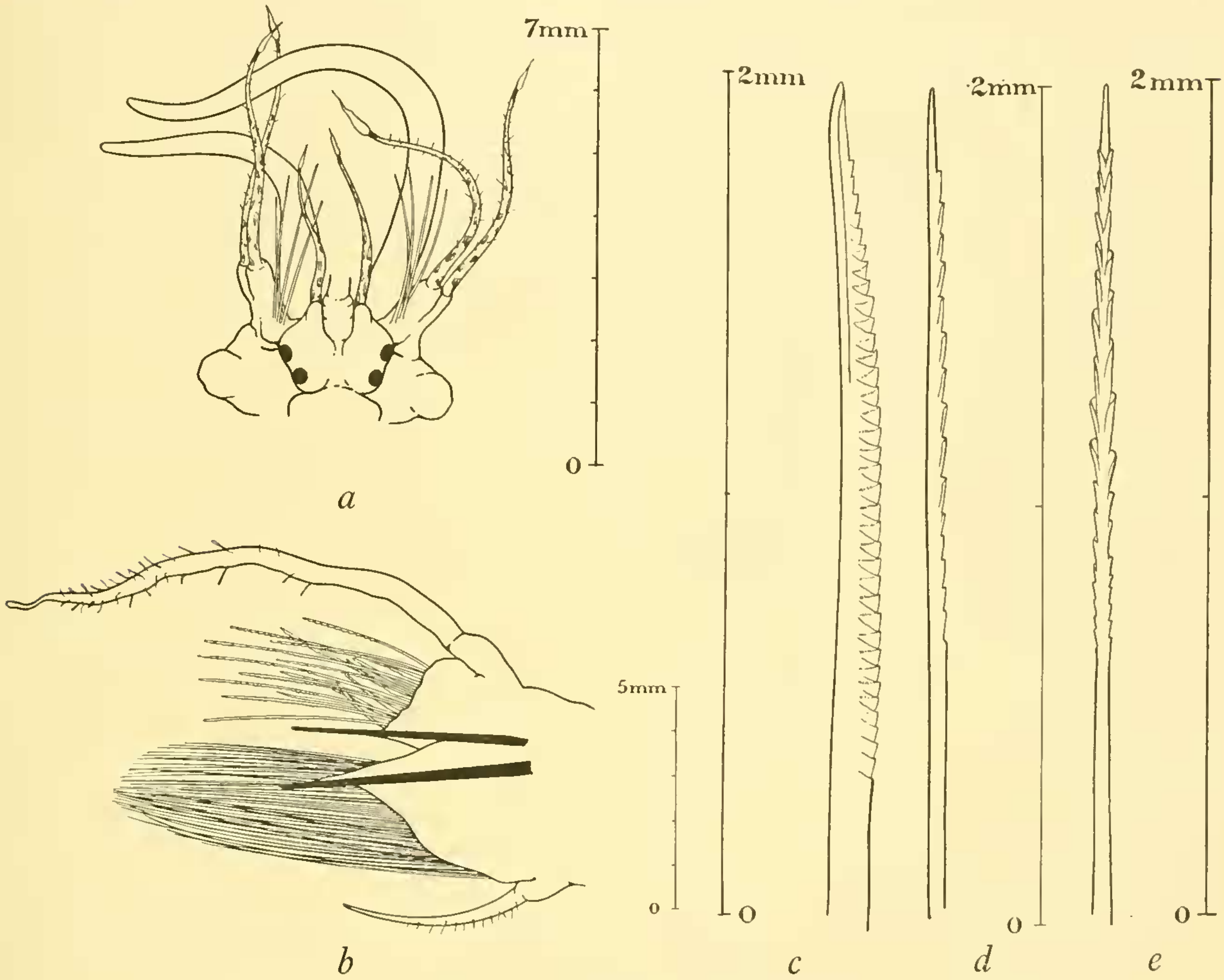

Fig. 11. *Eulagisca corrientis.*

a. Head. *b.* Foot. *c.* Dorsal bristle. *d.* Ventral bristle in profile. *e.* Ventral bristle.

The prostomium (Fig. 11, *a*) is subrectangular, and there are two pairs of large eyes both set rather far back and to the sides. The head is of the lepidonotid type and the lateral tentacles are terminally inserted. The medium tentacle is lost and the laterals are nearly twice as long as the prostomium. The palps are as long as the head and the first seven chaetigers, and the tentacular cirri are about two-thirds of their length.

All the appendages except the palps, which are thickly covered with small papillae, are very hirsute. Below the median tentaculophore is a small digitiform process (subtentacular cirrus), which is probably a facial tubercle. From just above the junction of the tentaculophores of the tentacular cirri on both sides is a bundle of about half a dozen stout bristles pointing directly forwards.

There are 15 pairs of prominent elytrophores and the elytra are all lost. The pseudo-elytrophores are scarcely less prominent than the elytrophores. The dorsal cirrophores are set low down on the foot and are very large structures with a prominent lateral bulge or expansion. The dorsal cirri are very long, the tips of the bristles only reaching to about half their length.

The feet (Fig. 11, *b*) are biramous and the bristles very numerous. Both dorsal and ventral lobes have long pointed prolongations containing the acicula. The dorsal aciculum reaches to about half the length of the dorsal bristles; the ventral is a little longer. The dorsal bristles (Fig. 11, *e*) are stouter than the ventral, strongly pectinate on one edge and smooth at their tips. The ventral (Fig. 11, *d* and *e*) are unidentate with well-developed rows of teeth. The ventral cirri are short, barely reaching to the end of the chaeta sac.

REMARKS. I have examined McIntosh's type specimens, and I believe the present Antarctic examples to be conspecific with them. McIntosh does not record the arrangement of the elytra; they occur on the following feet: 1, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 25, 28, 31. This species is now known from the South Shetlands, from the vicinity of Kerguelen Island and from 600 fathoms off Buenos Ayres.

Genus **Eunoë**, Malmgren

Eunoë opalina, McIntosh.

McIntosh, 1885, pp. 71–72, pl. x, fig. 5; pl. xix, fig. 2; pl. viii A, figs. 9–11.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. One specimen.

DESCRIPTION. This example has 20 chaetigers followed by a regenerating hinder end of 12 chaetigers. The measurement is 24 mm. by 10 mm. including the feet, and the colour in spirit is a pale yellow.

McIntosh has a good figure of the head. The eyes are lateral and the two pairs are set close together. The front pair is about half-way up the prostomium and the hinder pair is a little more lateral than as shown in McIntosh's figure. The lateral tentaculophores are larger and more prominent than as drawn by McIntosh, and the lateral tentacles are slightly longer than the prostomium. The palps are long and tapering and the ventral cirrus of the first foot is prolonged into a sort of accessory tentacular cirrus. Nearly all the elytra are lost and the few that remain are damaged. They are thin semi-transparent structures

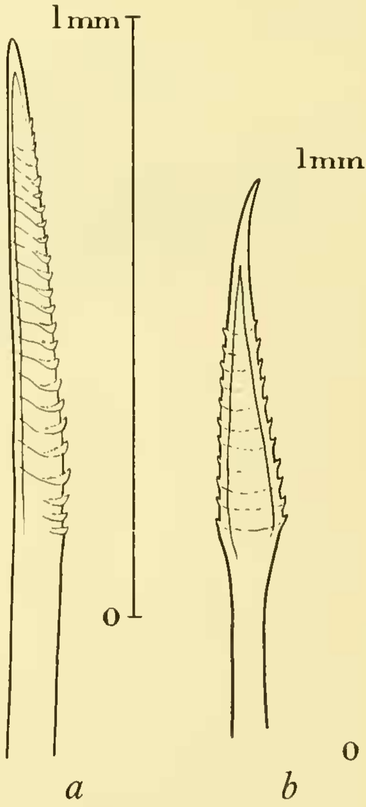

Fig. 12. *Eunoë opalina*.
a. Dorsal bristle. *b*. Ventral bristle.

of a milky colour, smooth except for a large patch of small tubercles near the scar of attachment. In a fragment of an anterior scale part of the edge had a few minute papillae projecting over it.

The feet are biramous and the dorsal cirri reach to the tips of the ventral bristles. The bristles are few in number: the dorsal (Fig. 12, *a*) are pointed and with smooth tips; the shaft is so lightly pectinated as to appear almost smooth. The ventral bristles (Fig. 12, *b*) are longer than the dorsal and almost of the same thickness. They are expanded towards the tip, which is smooth and slightly curved: the expanded part is traversed by very delicate pectinae which are often visible in profile on both sides of the blade, and not on one only as in McIntosh's figure (Pl. viii A, fig. 11). The ventral cirri reach about one-half the way down the ventral bristles.

REMARKS. I have examined McIntosh's type obtained at a depth of 245 fathoms in the Straits of Magellan, and I believe this Antarctic specimen to be conspecific with it.

Genus **Eucrantha**, Malmgren

Eucrantha mollis (McIntosh).

Eupolynoë mollis, McIntosh, 1879, p. 259, pl. xv, figs. 5–9.
Eucrantha mollis, Bergström, 1916, p. 294.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One specimen.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Four specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel, stones. One specimen.

REMARKS. Both McIntosh and Bergström give good accounts of this species, which is easily distinguishable by the long slender upper and lower ventral bristles with their minutely bifid tips. Bergström's figure (Text-fig. 2, *setae furcatae* Typus F) of the upper ventral bristles is a little misleading, because the rows of scales are not continued to the apex, and the curve is more pronounced than that of any I have seen either in these specimens or in McIntosh's type.

Genus **Polyeunoa**, McIntosh

Polyeunoa laevis, McIntosh.

McIntosh, 1885, pl. xii, fig. 2; pl. xx, fig. 8; pl. vii A, figs. 12–13.
Enipo rhombigera, Ehlers, 1908, pp. 47–49, pl. iv, figs. 1–12.
Polyeunoa laevis, Bergström, 1916, pp. 288–291, pl. iii, fig. 7.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Twelve specimens.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. One specimen.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Thirty-one specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. One specimen.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One specimen.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones, rock. Eleven specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **OTL**. Bottom: mud. Eleven specimens. (Collector's note: "One specimen with deep metallic blue colouring and one banded with brown. Both living along stems of large yellow Alcyonarians.")

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. Five specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126–315 m. Gear **NRL** and **DLH**. Bottom: mud, stones and rock. Seven specimens.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Bottom: sand. One specimen.

St. WS 82. 21. iii. 27. 54° 06′ 00″ S, 57° 46′ W. From 54° 05′ 00″ S, 57° 45′ 00″ W to 54° 07′ 00″ S, 57° 47′ 30″ W. 140–144 m. Gear **OTC**. Fourteen specimens.

St. WS 83. 24. iii. 27. 14 miles S 64° W of George Island, East Falkland Island. From 52° 28′ 00″ S, 60° 06′ 00″ W to 52° 30′ 00″ S, 60° 09′ 30″ W. 137–129 m. Gear **OTC**. Bottom: fine green sand and shell. Twenty-seven specimens.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. Two specimens.

St. WS 86. 3. iv. 27. 53° 53′ 30″ S, 60° 34′ 30″ W. From 53° 53′ 00″ S, 60° 37′ 00″ W to 53° 54′ 00″ S, 60° 32′ 00″ W. 151–147 m. Gear **OTC**. Bottom: sand, shell and stones. Five specimens.

St. WS 91. 8. iv. 27. 52° 53′ 45″ S, 64° 37′ 30″ W. From 52° 54′ 30″ S, 64° 39′ 00″ W to 52° 53′ 00″ S, 64° 36′ 00″ W. 191–205 m. Gear **OTC**. Bottom: fine dark sand and shell. One specimen.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. Twenty-three specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. Five specimens, associated with an Alcyonarian.

REMARKS. There is much variation in the arrangement of the pigment. The longitudinal dorsal stripe and the transverse markings may be both present or both absent, or one may be present and the other absent. In some specimens there is a series of dark brown markings on the ventral surface just below the neuropods. In a few examples the ventral surface is a deep purple.

The elytra are smooth except for a small patch of minute tubercles: the dorsal bristles are smooth or very lightly striated: the ventral bristles are unidentate and expanded towards the tip. Bergström has made a careful study of the variation in the arrangement of the elytra in this species.

Genus **Polynoë**, Oersted, sensu stricto

Polynoë antarctica, Kinberg.

Kinberg, 1857, p. 23, pl. x, fig. 58.
Fauvel, 1916, p. 426.
Harmothoë antarctica, Bergström, 1916, p. 279.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Two specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. Three specimens.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Bottom: sand. One specimen.

REMARKS. All the specimens occur north of 52°, except the example from the Palmer Archipelago, which is doubtfully attributable to this species. This specimen has the scales and body coloured chestnut brown. The structure of the foot is typical, except that there is a large bundle of abundant dorsal bristles instead of the usual few. The dorsal cirri are very long, the tips of the ventral chaetae reaching only to about half their length. There are only about 12 chaetigers behind the last pair of elytrophores. The bristles are typical.

Genus **Harmothoë**, Kinberg

Harmothoë magellanica (McIntosh).

Lagisca magellanica, McIntosh, 1885, p. 82, pl. xiii, fig. 5; pl. xviii, figs. 3–4; pl. vii A, figs. 1–2.
Harmothoë magellanica, Bergström, 1916, pp. 280–282, pl. iv, figs. 1–3.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Twelve specimens.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Five specimens.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Ten specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Twenty-one specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Twenty-five specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Seven specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. Five specimens.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. Five specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. Twelve specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Twenty-three specimens.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 156. 20. i. 27. 53° 51′ 00″ S, 36° 21′ 30″ W. 200–236 m. Gear **DLH**. Bottom: rock. Three specimens.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. Twelve specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones, rock. Eight specimens.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126–315 m. Gear **DLH** and **NRL**. Bottom: mud, stones and rock. Four specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. One specimen.

St. WS 27. 19. xii. 26. 53° 55′ 00″ S, 38° 01′ 00″ W. 107 m. Gear **N 100 H**. Bottom: gravel. Six specimens.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 76. 11. iii. 27. 51° 00′ 00″ S, 62° 02′ 30″ W. From 51° 00′ 00″ S, 62° 00′ 00″ W to 51° 00′ 00″ S, 62° 04′ 36″ W. 207–205 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. One specimen.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. Three specimens.

St. WS 109. 26. iv. 27. 50° 18′ 48″ S, 58° 28′ 30″ W. From 50° 19′ 00″ S, 58° 27′ 00″ W to 50° 18′ 36″ S, 58° 30′ 00″ W. 145 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½° W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. Five specimens.

St. MS 68. 2. iii. 25. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Six specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. A clearly defined species. The elytra are smooth except for a small patch of minute tubercles. Dorsal bristles lightly striated; ventral long and clearly bidentate: the upper ventral bristles have the toothing continued much further down the shaft than the rest. The elytra are often speckled with small dark spots.

Harmothoë spinosa, Kinberg.

Ehlers, 1913, p. 438, pl. xxvi, figs. 1–12.
Bergström, 1916, p. 284, pl. ii, figs. 5–6; pl. iii, figs. 1–4.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

St. 48. 3. v. 26. 8·3 miles N 53° E of William Point Beacon, Port William, Falkland Island. 105–115 m. Gear **OTL**. Bottom: sand and shell. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Eight specimens.

St. 52. 5. v. 26. Port William, East Falkland Island. 7·4 cables N 17° E of Navy Point. 17 m. Gear **LH**. One specimen.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Fifty-one specimens among kelp.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear **BTS**. Three specimens.

St. 57. 16. v. 26. Port William, East Falkland Island. 5½ cables S 20° W of Sparrow Point. 15 m. Gear **BTS**. One specimen.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Fourteen specimens.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia, 200 yards from shore, under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Three specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Fifteen specimens.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. One specimen.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones, rock. One specimen.

St. 163. 17. ii. 27. Paul Harbour, Signy Island, South Orkneys. 18–27 m. Gear **BTS**. Four specimens.

St. 164. 18. ii. 27. East end of Normanna Strait, South Orkneys, near Cape Hansen, Coronation Island. 24–36 m. Gear **BTS**. Four young specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud, coarse sand and stones. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126–315 m. Gear **DLH** and **NRL**. Bottom: mud, rock and stones. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **DLH**. Bottom: mud and stones. One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Five specimens.

St. WS 56. 14. i. 27. Larsen Harbour, Drygalski Fjord, South Georgia. From kelp roots, 2 m. Six specimens.

St. WS 62. 19. i. 27. Wilson Harbour, South Georgia. 15–45 m. Gear **BTS**. One specimen.

St. WS 72. 5. iii. 27. 51° 07′ 00″ S, 57° 34′ 00″ W. 95 m. Gear **OTC**. Bottom: sand and shell. Three specimens.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. One specimen from a Tubularian colony.

St. WS 76. 11. iii. 27. 51° 00′ 00″ S, 62° 02′ 30″ W. From 51° 00′ 00″ S, 62° 00′ 00″ W to 51° 00′ 00″ S, 62° 04′ 36″ W. 207–205 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 77. 12. iii. 27. 51° 01′ 00″ S, 66° 31′ 30″ W. From 51° 00′ 00″ S, 66° 30′ 00″ W to 51° 02′ 00″ S, 66° 33′ 00″ W. 110–113 m. Gear **OTC**. Bottom: coarse dark sand. One specimen.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132 m. Gear **N 7–T**. Bottom: fine dark sand. One specimen.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 84. 24. iii. 27. 7½ miles S. 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Four specimens.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. One specimen.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. Four specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. Four specimens.

St. MS 6. 12. ii. 25. East Cumberland Bay, South Georgia. ¼ mile S of Hope Point to 1¼ cables S × E of King Edward Point Light. 24–30 m. Gear **BTS**. Five specimens. .

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Five specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. Four specimens.

Remarks. Bergström has well figured the variations in the elytra of this very abundant Antarctic species. He treats Willey's *H. spinosa* var. *lagiscoides* as a separate species. I have included examples of Willey's variety within *H. spinosa*.

Harmothoë exanthema (Grube).

Bergström, 1916, p. 287, pl. iii, fig. 5.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Five specimens.

St. 56. 16. v. 26. Sparrow Cove, Port William, East Falkland Island. 1½ cables N 50° E of Sparrow Point. 10½–16 m. Gear **BTS**. Three specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Four specimens.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stone. Five specimens.

Remarks. I have nothing to add to what is already known of this species. The elytra have large stalked tubercles surmounted by a papilla, which is sometimes absent. The ventral bristles are both unidentate and bidentate.

Harmothoë anderssoni, Bergström.

Bergström, 1916, p. 286, pl. iii, fig. 6; pl. iv, figs. 8–10.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

Remarks. This specimen corresponds closely to Bergström's description. The elytra are ciliated and have tubercles with jagged tips. Some of the upper ventral bristles have scales on the blade as well as toothed edges: they are unidentate.

This is a quite different species from *H. hirsuta*, Johnson, in which the elytra are areolated and the ventral bristles bidentate.

Harmothoë crosetensis (McIntosh).

Lagisca crosetensis, McIntosh, 1885, pp. 88–89, pl. viii, fig. 6; pl. xiii, fig. 2; pl. xviii, fig. 7; pl. xi a, figs. 4–6.

Harmothoë crosetensis, Bergström, 1916, p. 284, pl. ii, fig. 4.

Harmothoë crosetensis, Ehlers, 1913, p. 442, pl. xxvii, figs. 1–4.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa, Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Four specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. One specimen.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126–315 m. Gear **DLH** and **NRL**. Bottom: mud, rock and stones. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. One specimen.

REMARKS. All the Antarctic specimens have long, numerous, pointed spines on the elytra and unidentate ventral bristles. The examples from the Cape have less sharply pointed elytral spines and bidentate ventral bristles. Willey (1902, p. 267) has created two varieties of this species, a var. *acuminata* for forms with acuminate elytral spines, such as his specimens from Cape Adare had, and a quite unnecessary var. *laciniata* for forms with elytral spines resembling those of the type specimen. All my Antarctic specimens belong to Willey's var. *acuminata*; on the other hand, Bergström states that his Antarctic specimens had elytral spines of the var. *laciniata* kind.

I am disinclined to attach much differential value to variations in the tips of the elytral spines, but I believe that there is a distinct varietal difference between the Antarctic forms and those from the South Temperate Zone, such as McIntosh's type from off the Crozet Islands and my specimens from the Cape, which have distinctly bidentate ventral bristles.

I suggest, therefore, that the Antarctic forms with unidentate ventral bristles should take the varietal name applied by Willey to his examples from Cape Adare and be called var. *acuminata*.

Harmothoë (Evarnella) impar Johnston, var. **notialis**, var. nov.

Harmothoë impar Johnston, Fauvel, 1923, p. 59, fig. 21 *a–f*.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Two specimens.

DESCRIPTION. The one complete specimen measures 16 mm. by 3 mm. including the feet.

The head is not nearly so deeply grooved in front as in the northern form and the palps are proportionately much longer and more slender. The position of the eyes is as in Johnston's species. The median tentacle is lost and the laterals are very small. The tentacles and dorsal cirri are provided with long clavate papillae and the palps with very short truncated ones. An elytron (Fig. 13, *a*) from the second pair is all that remains, and this is kidney-shaped, sparsely fringed at the external border with a few small clavate papillae, and dotted all over its surface with small simple tubercles.

The foot and bristles are very close to those of *E. impar*. The dorsal (Fig. 13, *b*) bristles are numerous and strongly pectinated, and the superior ventral (Fig. 13, *c*) are long, slender, toothed and with a delicate bidentate tip: more ventrally (Fig. 13, *d*) they become shorter and more expanded distally. The middle ventral chaetae are all clearly bidentate and only a few at the base of the foot lack the second tooth. The ventral cirri are short and smooth.

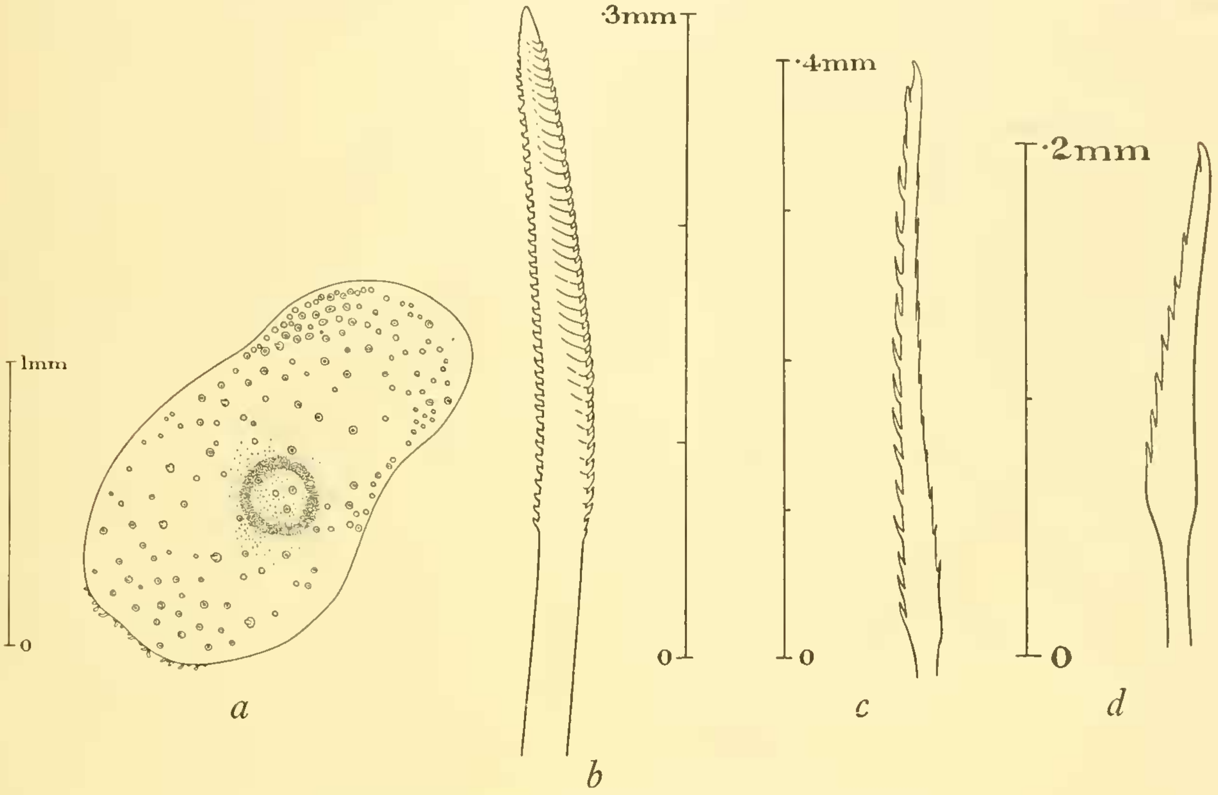

Fig. 13. *Harmothoë* (*Evarnella*) *impar*, var. *notialis*.
a. Elytron. *b*. Dorsal bristle. *c*. Upper ventral bristle. *d*. Lower ventral bristle.

Remarks. This variety differs from the typical form in the grooving of the head, the relative length of the palps and in the absence of a long fringe and large tubercles on the elytra. I have retained *Evarnella* as a sub-genus to include those forms in which there is a clear transition from the very slender, strongly toothed, superior ventral bristles to the broader, shorter, less spinous, inferior ventral bristles. *Evarne*, Malmgren, being preoccupied, *Evarnella*, Chamberlin, takes its place.

Harmothoë (Evarnella) kerguelensis (McIntosh).

Evarne kerguelensis, McIntosh, 1885, pp. 97–99, pl. vi, fig. 4; pl. xix, fig. 6; pl. vi a, figs. 12–14.

St. 126. 19. xii. 26. 53° 58′ 30″ S, 37° 08′ 00″ W. 100 m. Gear N 50 V. Bottom: coarse black sand and mud. (Net touched bottom.) One fragmentary specimen.

Remarks. A small fragment with a harmothoid head; it has 16 chaetigers and measures 3 mm. by 2 mm. including the feet. All the elytra and appendages are lost, but the bristles agree closely with those of McIntosh's type. The dorsal bristles (Fig. 14, *a* and *b*) are of the normal pectinated harmothoid kind; the superior ventral bristles (Fig. 14, *c*) are long and slender with two alternating rows of teeth, and the inferior ventral bristles (Fig. 14, *d*), more expanded towards the tip, appear quite smooth except under a very high magnification. They are all unidentate. The absence of a second tooth in the ventral bristles distinguishes this species from *H. impar* var. *notialis*.

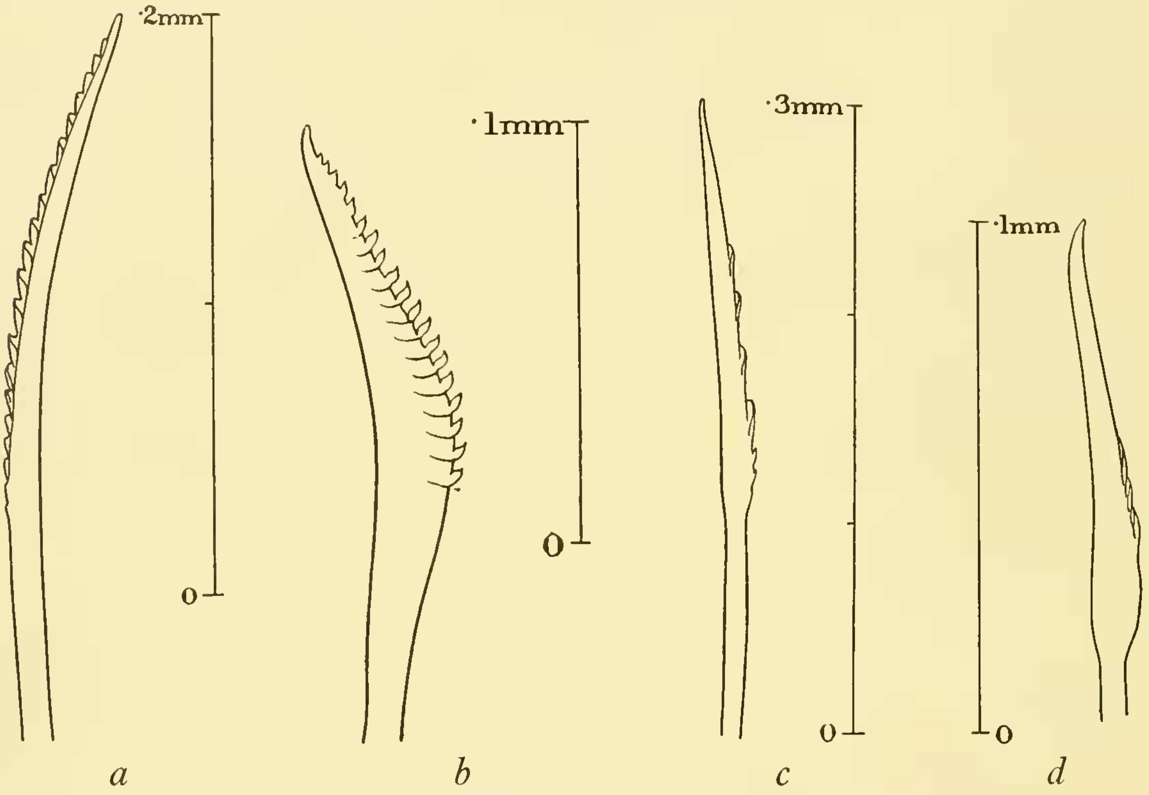

Fig. 14. *Harmothoë* (*Evarnella*) *kerguelensis*.
a. Dorsal bristle. *b*. Dorsal bristle. *c*. Upper ventral bristle. *d*. Lower ventral bristle.

Harmothoë (Barrukia) cristata (Willey).

Gattyana cristata, Willey, 1902, p. 268, pl. xliv, figs. 1–4.
Barrukia cristata, Bergström, 1916, p. 297, pl. v, figs. 7–9 and 14.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35 ′00″ W. 126–315 m. Gears **DLH** and **NRL**. Bottom: stones, mud and rock. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. Two specimens.

REMARKS. This species is recognisable by the dorsal bristles with hirsute tips. There is a row of median dorsal pads running the whole length of the body. The elytra have clavate tubercles with crenellated tops. The ventral chaetae are unidentate with two short rows of teeth on the shaft.

Harmothoë (Barrukia) curviseta, n.sp.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One small fragment.

St. 186. 16. iii. 27. Fournier Bay, Anvers Island, Palmer Archipelago. 64° 25′ 30″ S, 63° 02′ 00″ W. 295 m. Gear **DLH**. Bottom: mud. One specimen.

Description. Two fragments, the larger of which is composed of 24 chaetigers and measures 30 mm. by 10 mm. including the feet: the colour is pale yellow in spirit.

The prostomium (Fig. 15, *a*) is as broad as long and divided by a median groove. The insertion of the lateral tentacles is ventral, but the prostomial peaks are not distinct. The eyes are small; the anterior pair, which is the larger, is far forward and laterally placed, so that it can scarcely be seen from above. The posterior are about in the middle of their half of the prostomium. The median tentaculophore is fairly stout and the median tentacle is lost. The lateral tentacles are small and hirsute, and the palps long, tapering and smooth. Laid along the back they reach to the 5th chaetiger. The tentacular cirri are missing. The first five chaetigers have conspicuous mid-dorsal tubercles, rounded in the first two chaetigers and transversely elongated in the remainder.

Elytrophores are present on the 1st, 3rd, 4th and every alternate segment up to the 22nd; the pseudo-elytrophores are very conspicuous and similar in appearance to the elytrophores. The elytra are dotted throughout with small tubercles with truncated and irregular tops, and except for a small area near the inner border there are long cilia both on the scale itself and along its free edges (Fig. 15, *b*).

The feet are biramous: the dorsal cirri are lost, but the dorsal cirrophores are large, dorso-ventrally flattened structures ending in a rounded knob for the cirrus: they lie above the foot, and their end falls just short of the tips of the dorsal bristles.

The mid-ventral edge of the dorsal chaeta sac is carried out to a point containing the aciculum, and the middle of the anterior lip of the ventral chaeta sac is similarly produced. The notopodium appears to have been twisted through a right angle, so that the aciculum is in the mid-ventral line, and the dorsal bristles are arranged in three superimposed rows parallel with the long axis of the body. The ventral bristles lie at right angles to the dorsal.

The upper row of dorsal bristles (Fig. 15, *c*) is shorter than the rest, strongly curved towards the tip, and provided with rows of prominent pectinae on their convex side. The tips are devoid of hairs. Similar bristles are found in Willey's *Gattyana cristata* from Franklin Island, the genotype of *Barrukia*. The remaining two rows (Fig. 15, *d*) of dorsal bristles are lightly pectinated, and end in hairy tips, the "setae penicillatae" of Bergström.

The ventral bristles (Fig. 15, *e*) are slightly more slender than the dorsal, and in place of the usual rows of teeth, there are two short series of two to three teeth. One of these series is always seen lying along the middle of the shaft and the other to its right side. The arrangement is not unlike that figured by Bergström (1916, Pl. v, fig. 9) for *Barrukia*

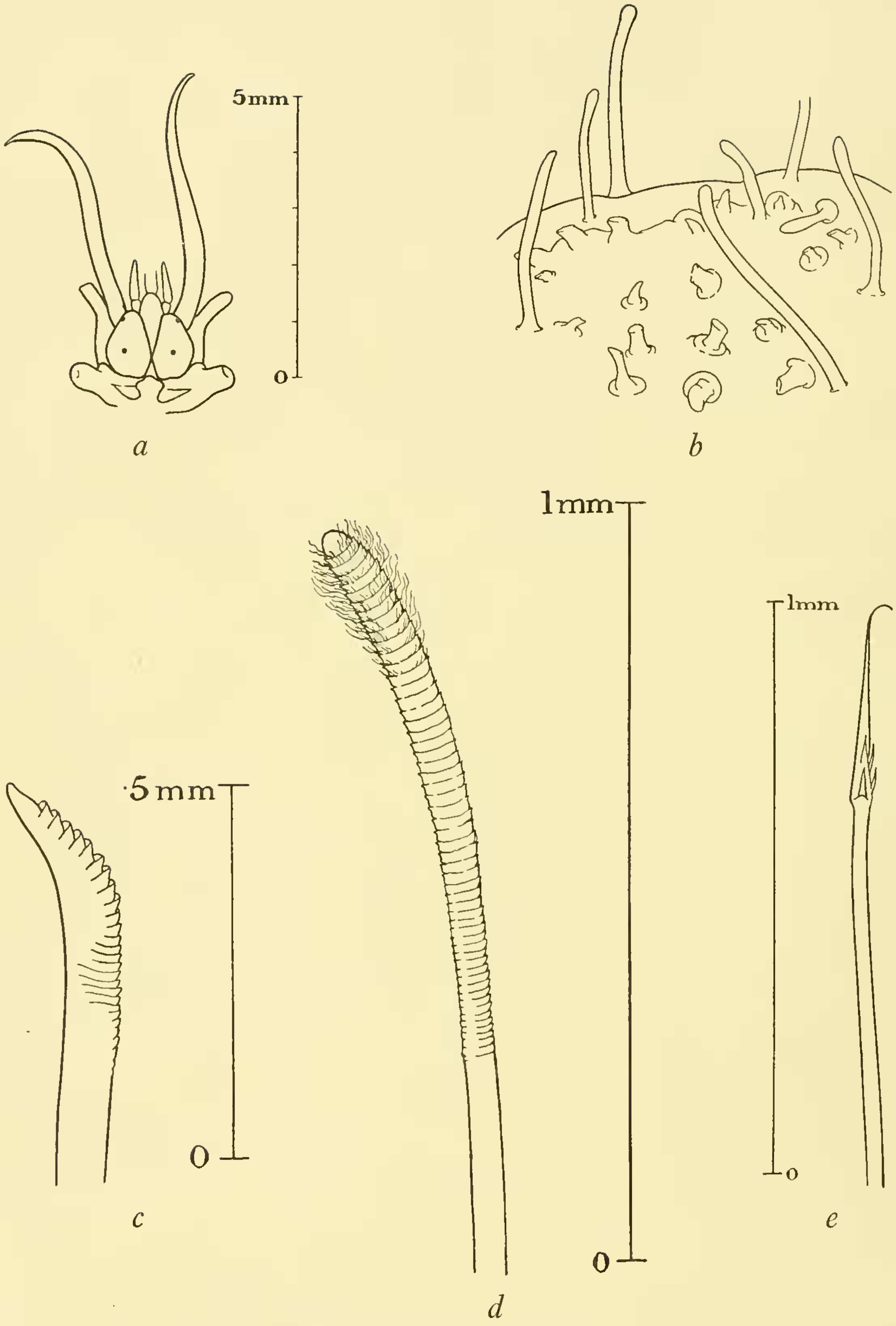

Fig. 15. *Barrukia curviseta*.

a. Head. *b*. Part of an elytron. *c*. Upper dorsal bristle. *d*. Lower dorsal bristle. *e*. Ventral bristle.

cristata. The ventral chaetae are prolonged into very fine delicate flagelliform tips which curl over in the shape of a hook. The extent to which the tips are bent over varies widely and a few bristles are without the curving of the tip. The ventral cirri are very small: they are attached to stout bulbous cirrophores.

REMARKS: I have attributed these fragments to the sub-genus *Barrukia* on the ground of the presence of dorsal "setae penicillatae." There are other characters, however, in which they resemble the genotype, the presence of the median dorsal tubercles, the shape of the dorsal cirrophores and of the feet. They differ from *Barrukia cristata* in the number of median dorsal tubercles, in the presence of long curved flagelliform tips to the ventral chaetae, and in the sculpturing of the elytra.

Genus Antinoë, Kinberg

Antinoë pelagica, n.sp.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. Bottom. 238–270 m. Gear NCS–T. One specimen.

St. SS 18. 15. xii. 27. 54° 58′ S, 27° 32′ W. 50–0 m. Gear N 70 V. One specimen.

DESCRIPTION. The body is slender and delicate. The complete specimen measures 11 mm. by 1·5 mm. without the feet: the measurement from tip to tip of the bristles is 6 mm. There are about 35 chaetigers and 15 pairs of elytra, which completely cover the body up to the pygidium. The elytra are faintly touched with brown on their edges; otherwise there is no colour.

The head (Fig. 16, *a*) is broader than long and deeply incised in front. The lateral tentacles are inserted ventrally. There are two pairs of eyes, of which the anterior is situated laterally and half-way down the head, and the posterior at the outer corners. The median tentacle is very long, reaching to the 8th chaetiger when laid along the back, and the lateral tentacles are extremely small. The palps are very slender and slightly longer than the median tentacle, which itself is longer than the tentacular cirri. The dorsal cirri are long and reach to the tips of the bristles, and the ventral cirri just reach to the end of the feet. The tentacles and cirri are hirsute, but the palps appear smooth.

The first pair of elytra is rounded, and the remainder are oval. Around the outer edge (Fig. 16, *b*) are a few sparse cilia, and the outer half of the scale is thinly dotted with small conical tubercles.

The feet (Fig. 16, *c*) are biramous and harmothoid in type, with long sheathed acicula protruding from both branches. The dorsal bundle consists of a number of backwardly curved scaly bristles (Fig. 16, *d*); just above the aciculum there are two chaetae that differ slightly from the rest: one (Fig. 16, *e*) is unusually broad and short, with its end projecting a short distance from the chaeta sac, and the other is of the same kind as the rest of the dorsal bristles but larger (Fig. 16, *f*) in all dimensions. All the dorsal bristles have a smooth tip.

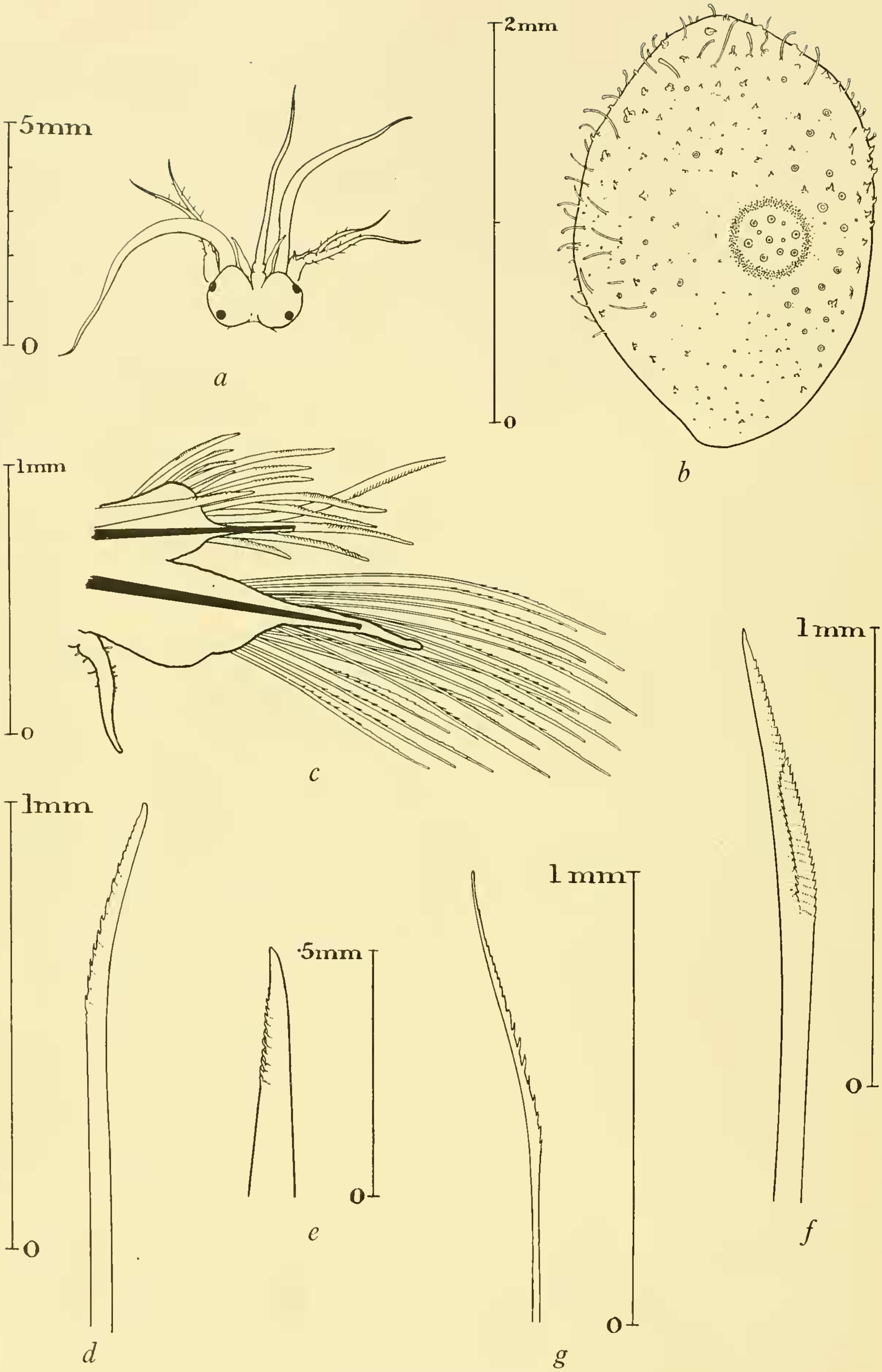

Fig. 16. *Antinoë pelagica.*

a. Head. *b.* Elytron. *c.* Foot. *d.* Normal dorsal bristle. *e.* Broad dorsal bristle. *f.* Large dorsal bristle. *g.* Ventral bristle.

The ventral bristles (Fig. 16, *g*) are about twice the length of the dorsal, and slender, with smooth unidentate tips and fine spirally arranged whorls of teeth going up the shaft. There is a pair of long pygidial styles.

Remarks. This pelagic polynoid has much in common with *Herdmanella gracilis*, Ehlers (Ehlers, 1908, p. 44). The shape of the head appears to be similar, and there are great resemblances in the structure of the bristles. In Ehlers' species the lateral tentacles are relatively longer, and there are only eight pairs of elytra. It is possible that *H. gracilis* may be a young stage of the present species, just as the present species is probably the pelagic phase of some bottom living form.

I have attributed this example to the genus *Antinoë* on the ground of the fine hairlike ventral bristles.

Antinoë setobarba, n.sp.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear OTM. Bottom: mud and stones. One specimen.

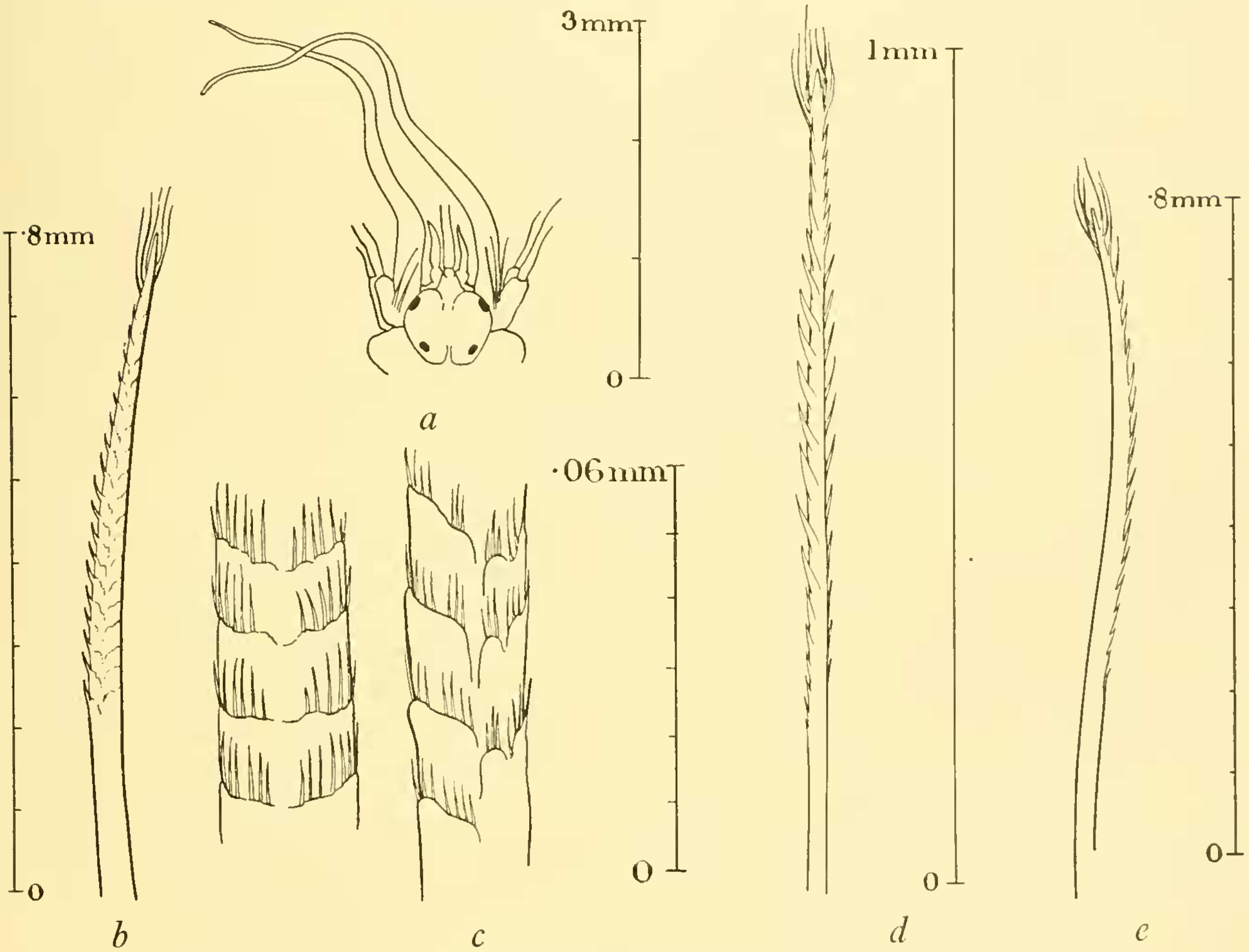

Fig. 17. *Antinoë setobarba*.
a. Head. *b*. Dorsal bristle. *c*. Part of dorsal bristle highly magnified.
d. Ventral bristle. *e*. Ventral bristle.

DESCRIPTION. The measurement is 21 mm. by 3 mm. excluding the feet. In spirit the dorsum is black merging into grey at the hinder end, except for the elytrophores and pseudoelytrophores which are white. The median tentaculophore is marked with chestnut brown, and there are two patches of this colour below the lateral tentacles.

The prostomium (Fig. 17, *a*) is subrectangular and divided by a median groove. The eyes are small, and the front pair is near the anterior lateral edges of the prostomium; the hinder pair is near the posterior lateral edges. There is a stout median tentaculophore, by the sides of which are the two inconspicuous prostomial peaks. The lateral tentacles are inserted ventrally, and are very small. The palps are long, smooth and tapering. The median tentacle and all the tentacular cirri except one are lost; this cirrus is papillose.

There are 15 elytrophores, and all the elytra are lost; behind the hindermost elytrophore are only four chaetigers. The dorsal cirri are all lost, and the cirrophores are placed low down on the feet just above the dorsal bristles. All the cirrigerous segments have small pad-like pseudoelytrophores.

The structure of the feet is harmothoid in character. The dorsal chaetae (Fig. 17, *b* and *c*) are numerous with rather irregular rows of very fine scales, and end in a bearded tip. The aciculum is mid-ventral in position.

The ventral chaetae (Fig. 17, *d* and *e*) are also numerous, more slender than the dorsal, with two rows of teeth and a fine unidentate tip covered with a number of delicate hairs. The ventral cirri are short and very slender.

REMARKS. This species combines the penicillate dorsal chaetae, which distinguish Bergström's *Barrukia*, with filamentous ventral chaetae very like those of his *Austrolaenilla antarctica*. The ventral bristles of *A. setobarba* are unidentate, and those of Bergström's species are bidentate.

I know of no other Polynoid that has bearded tips to both its dorsal and its ventral chaetae.

Antinoë antarctica (Bergström).

Austrolaenilla antarctica, Bergström, 1916, pp. 291–294, pl. iii, fig. 8; pl. v, figs. 1 and 2.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. One specimen.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **N 7–T**. Bottom: grey mud. Two specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Sixteen specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Six specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 142. 30. xii. 26. East Cumberland Bay, South Georgia. From 54° 11′ 30″ S, 36° 35′ W to 54° 12′ S, 36° 29′ 30″ W. 88–273 m. Gear **N 4–T**. Bottom: mud. Five specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Four specimens.

St. MS 68. 2. iii. 25. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Four specimens.

REMARKS. The prostomium (Fig. 18) is very broad and divided by a median groove. The peaks are not clearly defined. The eyes are very small and sometimes invisible. The median tentaculophore is very large, and all three tentaculophores are reddish brown. The elytra have small tubercles and slender clavate papillae. The dorsal chaetae are lightly pectinated, and the ventral are long, slender, unidentate and end in a hirsute tip.

I have already elsewhere (Monro, 1929, p. 162) given reasons for my opinion that *Austrolaenilla* should be regarded as a synonym of *Antinoë*, Kinberg, *sensu* McIntosh.

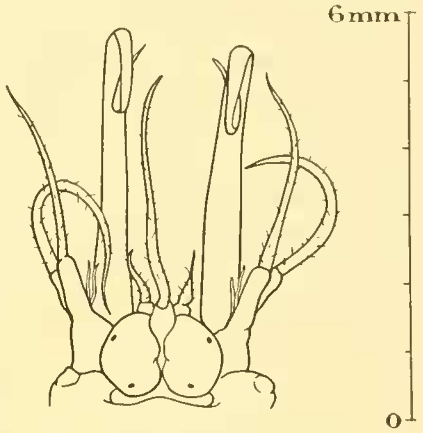

Fig. 18. *Antinoë antarctica*. Head.

Antinoë epitoca n.sp.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. One specimen.

DESCRIPTION. One specimen, incomplete posteriorly. There are 28 chaetigers and 14 pairs of elytrophores; the measurement is 29 mm. by 3 mm. without the feet.

The prostomium (Fig. 19, *a*) is broader than long and deeply incised in front. There are two pairs of eyes of which the anterior is on the front apexes and the posterior at the hinder corners of the head. There are no peaks, their place being taken by the anterior eyes. The median tentacle has a very large tentaculophore set between the anterior eyes, and a long style about three times the length of the head. The lateral tentacles are small, about the length of the head, and their tentaculophores are hidden from above by the eyes and median tentaculophore. The palps are long, reaching back along the dorsum to the 7th chaetiger and the tentacular cirri are about twice the length of the lateral tentacles. Neither the appendages of the head nor the cirri are hirsute.

The elytra are all lost, but the first 14 pairs of elytrophores are arranged as in *Harmothoë*.

The dorsal cirrophores are large inflated-looking structures, which reach to the end of the feet, and the dorsal cirri extend well beyond the tips of the bristles. The elytrophores also have a somewhat inflated appearance and are about half the length of the cirrophores. The feet (Fig. 19, *b*) are biramous.

The dorsal ramus is on the upper and anterior face of the neuropodium, and consists of a rounded chaeta-sac carried out into a point by a long sheathed aciculum.

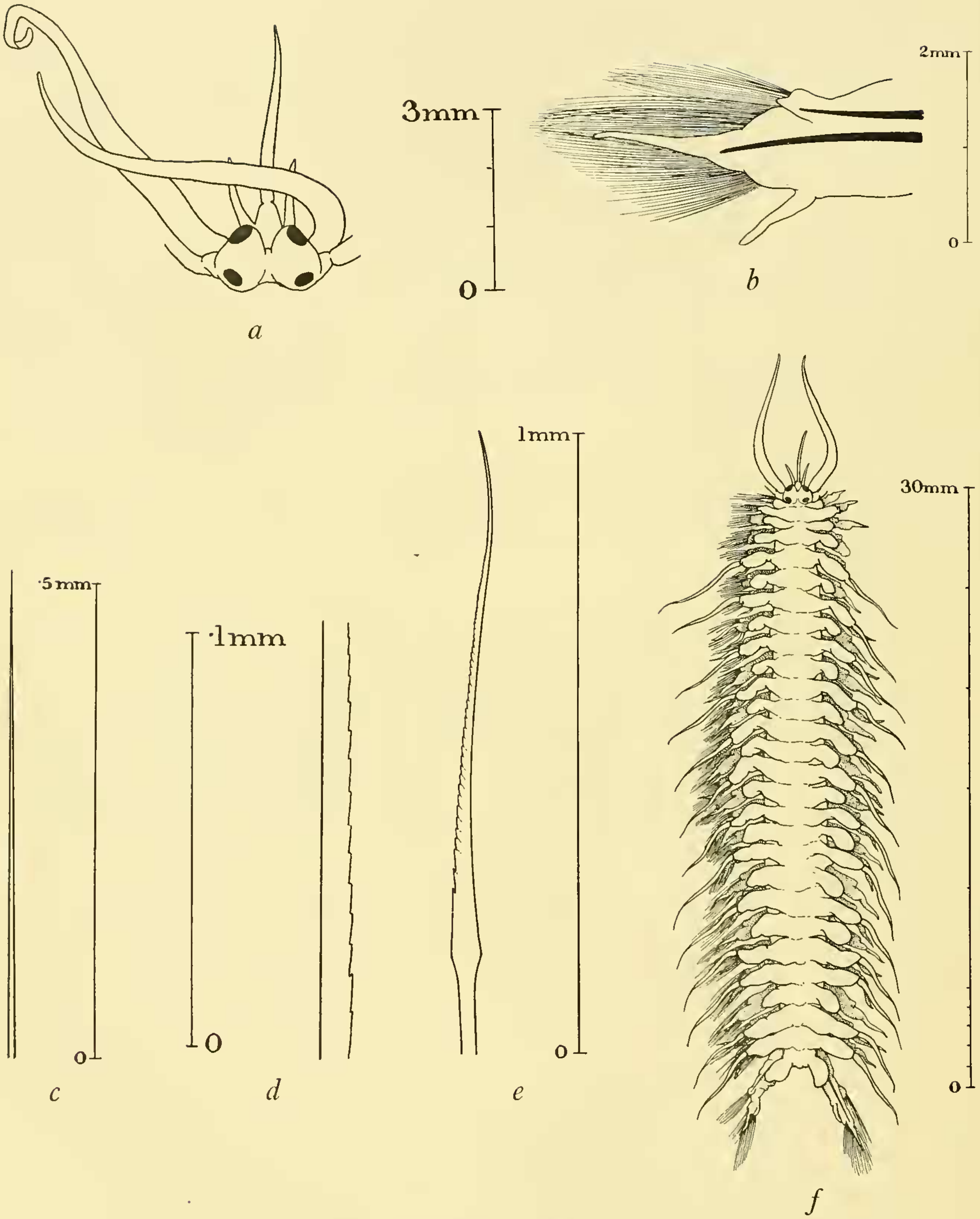

Fig. 19. *Antinoë epitoca.*

a. Head. *b*. Foot. *c*. Dorsal bristle. *d*. Part of dorsal bristle highly magnified.
e. Ventral bristle. *f*. Entire animal seen from above.

The dorsal (Fig. 19, *c*) bristles are numerous and exceedingly fine capillaries, which appear to be quite smooth, but under a very high magnification minute serrations (Fig. 19, *d*) can be detected on one side of the blade.

The ventral bristle bundle is contained between two vertical lips, the anterior of which is produced into an extremely long cirriform process, almost reaching to the tips of the bristles. The ventral bristles (Fig. 19, *e*), although coarser than the dorsal, are very long and slender, and end in fine hair-like tips. They carry rows of delicate closely set teeth. The ventral cirri are short, just reaching to the lip of the chaeta sac. The example (Fig. 19, *f*) is a ripe female, filled with ova.

Remarks. I find this specimen very puzzling. It was apparently obtained from the bottom of the sea, and the head and the sturdy character of the body are not those of a pelagic form: on the other hand, the large inflated-looking cirrophores and the long very delicate bristles recall the free-swimming species. Furthermore, I know no genus in which the bristles of both rami of the foot are fine capillaries, the dorsal almost smooth and finer than the ventral. I have provisionally attributed it to *Antinoë* on account of its ventral bristles, for I am unwilling to base a new genus on an incomplete specimen.

The example is full of eggs, and I think it very possible that it is undergoing some sexual change, involving the temporary adoption of the pelagic habit.

Family ACOETIDAE

Genus **Eupanthalis**, McIntosh

Eupanthalis tubifex (Ehlers).

Euarche tubifex, Ehlers, 1887, p. 54, pl. xii, figs. 1–7; pl. xiii, fig. 1.
Eupanthalis tubifex, Augener, 1918, p. 125, pl. ii, fig. 20.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear OTL. Bottom: grey mud. One specimen.

Remarks. A large example, measuring 295 mm. by 10 mm. including the feet, of this species, described by Ehlers from the West Indies and by Augener from the Belgian Congo. Fauvel regards it as synonymous with the Mediterranean *E. kinbergi*, McIntosh, but this seems to me doubtful. Both in my specimen and in that figured by Ehlers the bristles are extremely short, while in all the Mediterranean examples seen by me they are fairly long and prominent.

Genus **Polyodontes**, Renier

Polyodontes mortenseni, Monro.

Monro, 1928, p. 569, figs. 19–24.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear OTL. Bottom: mud and fine sand. One specimen.

Remarks. An anterior fragment belonging to a young specimen. Neither the branchiae nor the bristles are as fully developed as in the type specimen from Panama. The skin is flaccid on top of the feet and definite branchial processes are hard to distinguish.

It seems probable that this species is identical with *P. bicolor*, Grube, described by Augener (1918, p. 119) from the West Coast of Africa. The finger-shaped process on the foot, which Augener was unable to interpret with certainty, is present in the Panama specimen and seems to be an undoubted branchia.

The globular extension of the skin of the ventral side of the pedal lobe of the first foot, which Augener figures and describes, is completely absent from my specimens.

Family SIGALIONIDAE

Genus **Euthalanessa**, Darboux

Euthalanessa dendrolepis (Claparède).

Fauvel, 1923, p. 114, fig. 42 *h–o*.
Euthalanessa insignis, Ehlers, 1908, p. 52, pl. i, figs. 10 and 12; pl. ii, figs. 1–9.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. 0·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Two specimens.

Remarks. Two small anterior fragments. The *Euthalanessa insignis*, Ehlers, from 35° 2′ S, 19° 58′ W seems to me to be indistinguishable from the European *E. dendrolepis*. On the other hand, the *E. insignis*, Ehlers, of Augener from the Gold Coast is a different species. According to Augener's account it has a third cirrus on the first segment. Gravier's *E. djiboutiensis* has the palps lying outside the first segment and apparently not fused with it. My specimens correspond in detail with Ehlers' description and figures.

Genus **Leanira**, Kinberg

Leanira incisa, Grube.

Augener, 1918, p. 107, with synonymy.
Sthenelais simplex, Ehlers, 1887, p. 60, pl. xiii, figs. 2 and 3; pl. xiv, figs. 1–6.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. Three specimens.

Remarks. Four incomplete examples of this species, described by Grube and Ehlers from the West Indies and recorded by Augener from the Congo. In these specimens the ventral ramus of the feet bears in the middle one stylode of much greater length than the rest: this is not shown in Ehlers' figures.

Family PHYLLODOCIDAE

Genus **Eteone**, Savigny

Eteone sculpta, Ehlers.

Ehlers, 1901, p. 80, pl. viii, figs. 18–21.
Bergström, 1914, p. 191, text-fig. 71.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. One specimen.

St. 166. 19. ii. 27. SE Point of Paul Harbour, Signy Island, South Orkneys. Shore collection. One specimen.

St. WS 71. 23. ii. 27. 6 miles N 60° E of Cape Pembroke Light, East Falkland Island. 51° 38′ 00″ S, 57° 32′ 30″ W. 82 m. Gear **OTC**. Bottom: sand. One specimen.

St. WS 84. 24. iii. 27. $7\frac{1}{2}$ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. One specimen.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. One specimen.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. Three specimens.

St. MS (?). 13. iv. 25. East Cumberland Bay, South Georgia. One specimen.

Remarks. The majority of examples are bright yellow with a dark brown transverse band in each segment. They correspond closely to Ehlers' *E. crassifolia* which Bergström identifies with *E. sculpta*.

The dorsal cirri are symmetrical, but I do not find their breadth invariably exceeding their length, as Bergström claims. Roughly speaking, the length and breadth are about the same.

The most easily appreciable difference between this species and *E. rubella* is that in the latter species the aciculum and chaeta-sac are considerably more prominent in relation to the cirri than they are in *E. sculpta*. Bergström's suggestion that *E. sculpta* is a variety of the Arctic *E. flava* seems to me sound.

Eteone aurantiaca, Schmarda.

Bergström, 1914, p. 201, text-fig. 76, with synonymy.

St. WS 65. 22. i. 27. Undine Harbour (North), South Georgia. With kelp root. One specimen.

Remarks. A small *Eteone*, which I attribute to this species on the ground of its short asymmetrical dorsal cirri.

Eteone rubella, Ehlers.

Ehlers, 1901, p. 80, pl. viii, figs. 18–21.
Bergström, 1914, p. 191, text-fig. 71.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N $76\frac{1}{2}$° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

REMARKS. One specimen which probably belongs to this species. The body is pale yellow, and in the hinder part of the specimen the dorsal cirri are tinged with brown. I can find no trace of eyes. In other respects the example agrees with Ehlers' description. The anal cirri are two small rounded lobes. It differs from *E. aurantiaca* in that the dorsal cirri are symmetrical.

Genus **Phyllodoce**, Savigny

Phyllodoce patagonica (Kinberg).

Anaitides patagonica, Bergström, 1914, p. 147, text-fig. 46, with synonymy.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Four specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 91. 8. ix. 26. 0·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. ? One specimen.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia, 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Three specimens.

St. 142. 30. xii. 26. East Cumberland Bay, South Georgia. From 54° 11′ 30″ S, 36° 35′ W to 54° 12′ S, 36° 29′ 30″ W. 88–273 m. Gear **N 4–T**. Bottom: mud. One specimen.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Two specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. One specimen.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. One specimen.

St. MS (?). 13. iv. 25. East Cumberland Bay, South Georgia. Two specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. I have followed Bergström in identifying *P. madeirensis* of Ehlers and Willey with *P. patagonica*. The specimen from the Cape has the papillae of the proboscis thinner and more foliaceous than have the more southern forms. Moreover, it has seven papillae in the middle line and eleven in the rest, whereas five and nine seem to be the more usual numbers for the Antarctic examples.

Phyllodoce (Anaitis) bowersi, Benham.

Phyllodoce bowersi, Benham, 1927, p. 77, pl. i, figs. 27–31.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

REMARKS. This is an example of Benham's species from the Ross Sea. It has an orange stripe down the middle of the back. The differences in the length of the dorsal cirri of the three tentacular segments is not so great as Benham indicates. Otherwise this specimen corresponds in detail to Benham's description and figures. I have only one specimen, and I cannot without damaging it ascertain the tentacular formula.

Phyllodoce oculata, Ehlers.

Ehlers, 1887, p. 135, pl. xl, figs. 4–6.
Anaitides oculata, Bergström, 1914, p. 144, text-fig. 44.
Augener, 1918, p. 169.

St. 1. 16. xi. 25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′ 00″ W. 16–27 m. Gear **NRM**. Bottom: coral, sand and shell. One specimen.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ S, 12° 12′ W. 40 m. Gear **LH**. Two specimens.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Two specimens.

REMARKS. The head is rather long, equalling in length the first six segments. The first tentacular segment is incomplete dorsally, and the longest tentacular cirrus, when laid along the back, reaches to the 9th segment and not to the 14th, as in Ehlers' description. There are twelve rows of papillae with nine in each row.

At both ends of the body the dorsal cirri are considerably narrower and more symmetrical than they are in the middle of the body (Fig. 20); also the anterior ventral cirri are shorter and less pointed than they are in the rest of the body. The colour is a pale yellow without markings, but in one of the specimens the ventral surface of the posterior two-thirds of the body is a dull green. The range from the West Indies to Tristan da Cunha is a long one, but I cannot discover any differences of specific value between these specimens and those described from the former locality.

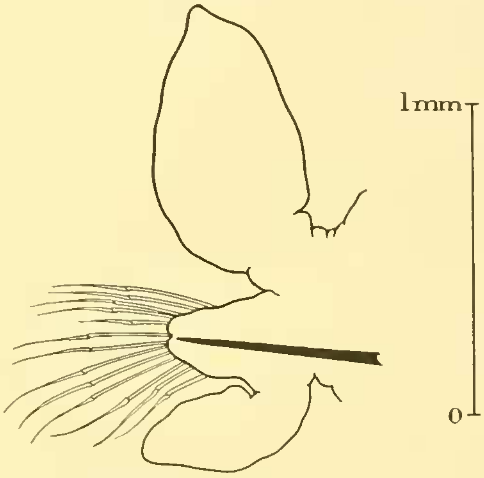

Fig. 20. *Phyllodoce oculata*. Middle foot.

Phyllodoce longipes, Kinberg.

Kinberg, 1865, p. 241.
Ehlers, 1901, p. 72, pl. vii, figs. 1–4.
Bergström, 1914, p. 149, text-fig. 47.

St. 142. 30. xii. 26. East Cumberland Bay, South Georgia. From 54° 11′ 30″ S, 36° 35′ W to 54° 12′ S, 36° 29′ 30″ W. 88–273 m. Gear **N 4–T**. Bottom: mud. One specimen.

DESCRIPTION. This example has 140 segments, measures 110 mm. by 7 mm. including the feet, and is incomplete posteriorly. There is an iridescent blue band, wider in front than behind, running down the middle of the back. The cordiform head with its median papilla has been figured by Ehlers: the eyes in my specimen are so much faded as to be only just indicated. This may have been caused by the fact that the specimen was removed in a dry condition from a faulty bottle.

The formula for the tentacular segments is as follows: $1 + B\frac{a1}{a1} + B\frac{a1}{aN}$.

The first tentacular segment is incomplete dorsally, and its cirrus and the thickened ventral cirrus of the second segment are both less than half the length of the other two tentacular cirri. The dorsal tentacular cirrus of the second segment reaches back to the 12th segment.

The foot (Fig. 21), with its small digitiform appendage at the end of the chaeta sac and the pointed end of the ventral cirrus, has been figured by Bergström and by Ehlers, but both these authors have overlooked one important fact. When the foot has been cleared, a very slender aciculum can be seen running up the dorsal cirrophore as in *Austrophyllum* and *Notophyllum*. The proboscis is unfortunately not everted.

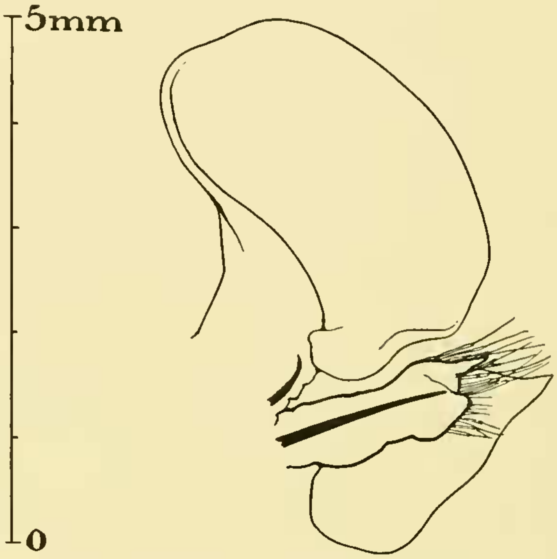

Fig. 21. *Phyllodoce longipes*. Middle foot.

REMARKS. This species has a foot very like that of *Notophyllum foliosum* as far as the dorsal ramus goes, but the head with its occipital papilla and no median tentacle is that of a *Phyllodoce*.

For uniformity's sake, I should make this species the type species of a new genus, but I suspect that, as our knowledge of this family increases, it will be found that a number of species on close investigation show vestiges of a biramous condition of the foot. I therefore retain its original name in spite of the fact that by generic definition *Phyllodoce* has uniramous feet.

This species seems to be very like *Phyllodoce macropapillosa*, St Joseph, from European waters (v. Fage et Legendre, 1927, p. 53, fig. 6), but no dorsal aciculum has been described for St Joseph's species.

Genus **Austrophyllum**, Bergström

Austrophyllum charcoti (Gravier).

Bergström, 1914, p. 119, text-fig. 30, with synonymy.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. Two specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. One specimen.

Remarks. The proboscis is not smooth distally, but the bands of papillae are continued to the apex as in Gravier's original description.

Genus **Genetyllis**, Malmgren

Genetyllis polyphylla (Ehlers).

Phyllodoce polyphylla, Ehlers, 1897, p. 26, pl. i, figs. 14–19.
Phyllodoce polyphylla, Gravier, 1911, p. 54, pl. i, figs. 9–11.
Genetyllis polyphylla, Bergström, 1914, p. 161, text-fig. 55.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Two specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126–315 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. Two specimens.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½ W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. One specimen.

Remarks. Sts. 145 and 190 each yielded two small examples of this species. They are bright yellow with orange dorsal cirri.

From St. MS 14 was obtained an incubating specimen. It is curled upon itself to such an extent that accurate measurements are impossible, but it is approximately 20 mm. long by 1 mm. broad. Exactly as in Gravier's description of *Eteone gaini*, there is an envelope of dark brown parchmenty substance wrapped round the specimen, from which only the head and tail are free. Inside this envelope is a large number of larval phyllodocids, measuring about 1 mm. in length and having about 12 chaetigers.

Unfortunately the specimen is in bad condition and cannot be determined with certainty, but from the structure of the head and anterior segments and from the fragments of the feet which I was able to detach, I believe it to belong to this species.

Genus **Eulalia**, Oersted

Eulalia magalhaensis, Kinberg.

Steggoa magelhaensis, Bergström, 1914, p. 129, with synonymy.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia, 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Two specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Two specimens.

St. MS (?). 13. iv. 25. East Cumberland Bay, South Georgia. Two specimens.

REMARKS. Bergström has made this species the type of a new genus, *Steggoa*, on the ground of the foliaceous character of the ventral cirrus of the second tentacular segment, the absence of bristles in this segment, and the presence of a notopodial aciculum in the third tentacular segment. The species is easily distinguishable by the long and comparatively narrow dorsal cirrus.

Eulalia viridis (O. F. Müller).

Fauvel, 1923, p. 160, fig. 57 *a–h*, with synonymy.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Ten specimens.

REMARKS. Ten specimens with very long and narrow dorsal cirri. The ventral cirrus of the second tentacular segment is moderately thickened and flattened, and betrays no trace of border. The three tentacular segments are clearly separated. Augener (1918, p. 174) does not figure the ventral cirrus of the second tentacular segment of his *Steggoa microcephala* (Clap.) from the Gulf of Guinea, and from his description his *S. microcephala* is scarcely to be distinguished from this species. Augener's *Eulalia viridis* var. *capensis*, Schm. from South-west Africa differs in having much broader dorsal cirri.

Eulalia anomalochaeta, n.sp.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Two specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: stones, mud and rock. One specimen.

DESCRIPTION. The average size is about 100 mm. by 4 mm. including the feet and the number of chaetigers is about 300. The body is long and vermiform and only slightly tapered at the ends. The body colour is a pale green with large segmental transverse bands, sometimes interrupted in the mid-dorsal line.

The feet and cirri are either dark brown or dark green. The prostomium (Fig. 22, *a*) is roughly rectangular in shape, and the eyes are set well back; these are oblong with crystalline centres. There are five tentacles, and the median is set in front of the eyes. The cirrus of the first tentacular segment is about half the length of the dorsal cirri of the remaining tentacular segments. These cirri, when laid along the back, reach to the 9th segment.

The ventral cirrus of the 2nd tentacular segment is slightly flattened and a little longer than the cirrus of the 1st tentacular segment. The remaining tentacular cirri are all digitiform.

Expressed in Bergström's formula the tentacular segments are as follows:

$$1 + B\,\frac{1}{a1} + B\,\frac{1}{aN}.$$

All the everted area of the proboscis is covered with a sort of thick fur of conical papillae.

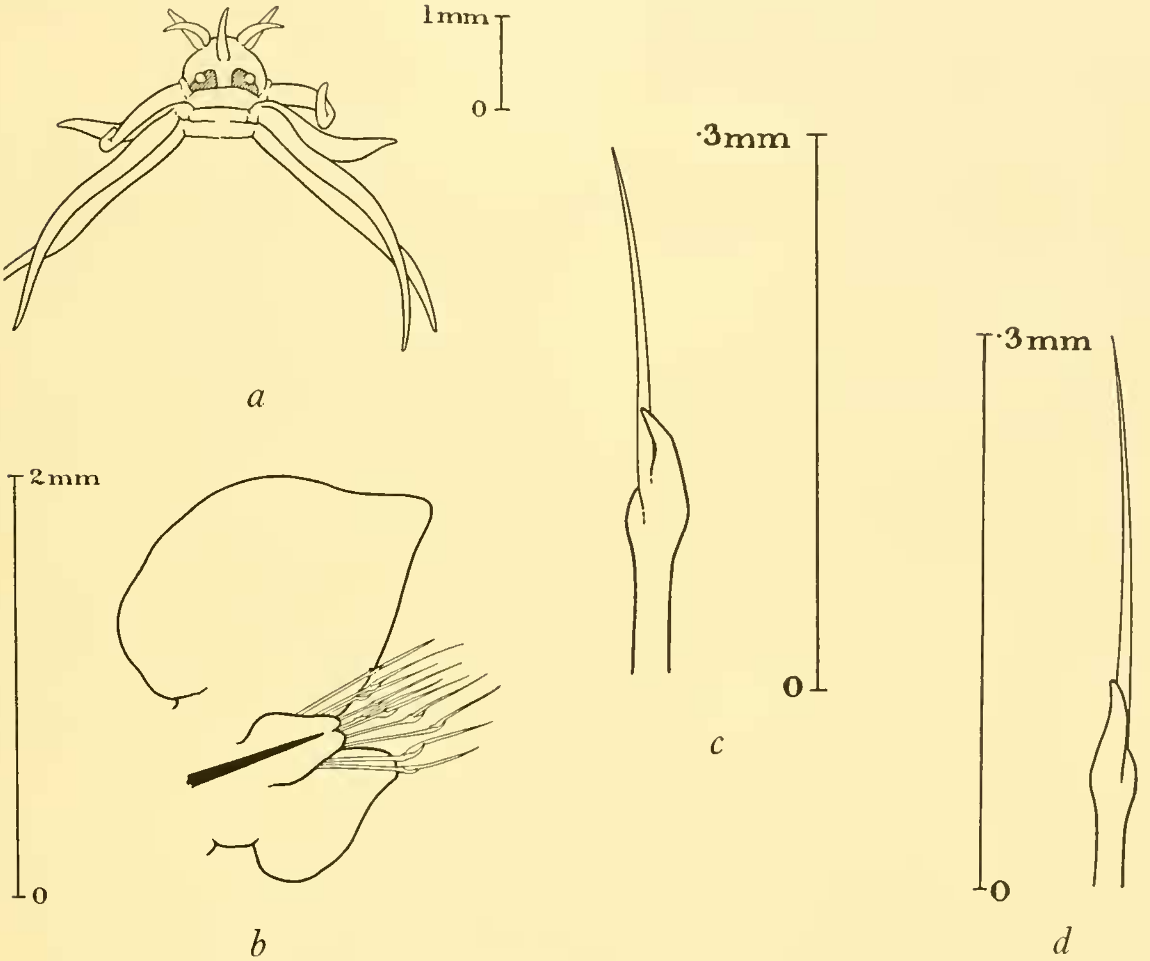

Fig. 22. *Eulalia anomalochaeta.*

a. Head. *b.* Middle foot. *c.* Heterogomph bristle. *d.* Heterogomph bristle.

The feet (Fig. 22, *b*) are bilobed, and the dorsal cirri are large and cordiform, almost as broad as long, and sometimes apparently asymmetrical. The ventral cirri are about one-third the size of the dorsal, rather asymmetrical and with blunted ends. The bristles (Fig. 22, *c* and *d*) are remarkable. They are very strongly heterogomph, and the "hilt" ends in a large hook, below which is the articulation for the very small delicately hirsute blade. The pygidium consists of a simple rounded lobe.

Remarks. I believe these markedly heterogomph bristles to be distinctive of this species, for I know no *Eulalia* with chaetae at all resembling them.

Eulalia subulifera (Ehlers).

Hypoeulalia subulifera, Bergström, 1914, p. 167, text-fig. 58, with synonymy.

Cumberland Bay, South Georgia. Three specimens.

Remarks. As in Gravier's specimens, the pigment is more diffuse than as described by Ehlers. The proboscis is thickly covered with small papillae. Bergström has established the genus *Hypoeulalia* to include this species and *E. bilineata* (Johnston), on the ground of the fusion of the first tentacular segment with the head.

Eulalia picta, Kinberg.

Notalia picta, Bergström, 1914, p. 127, text-fig. 34, with synonymy.

St. 56. 16. v. 26. Sparrow Cove, Port William, East Falkland Island. 1½ cables N 50° E of Sparrow Point. 10½–16 m. Gear **BTS**. One specimen.

St. 57. 16. v. 26. Port William, East Falkland Island. 5½ cables S 20° W of Sparrow Point. 15 m. Gear **BTS**. One specimen.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Five specimens.

St. 156. 20. i. 27. 53° 51′ 00″ S, 36° 21′ 30″ W. 200–236 m. Gear **DLH**. Bottom: rock. One specimen.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

Remarks. On either side of each chaetiger is a black spot just above the dorsal cirrus, and black spots are sometimes discernible in a similar position on the undersurface below the ventral cirri. Two of the examples have the proboscis only partly protruded, and it then has the misleading appearance of being covered with large papillae, which are what Bergström describes as *Kontraktionswarzen*.

Genus **Lopadorhynchus**, Grube

Lopadorhynchus brevis, Grube.

Fauvel, 1923, p. 184, fig. 69 *k*.
Ehlers, 1913, p. 463.
Lopadorhynchus nans, Chamberlin, 1919, p. 116, pl. xvii, figs. 1–5.

St. 273. 31. vii. 27. 9° 38′ 00″ S, 12° 42′ 30″ E. 200–230 (–0) m. Gear **TYF**. One specimen.

Remarks. This specimen from St. 273 measures 12 mm. by 4 mm. including the feet and has about 27 chaetigers. The head is slightly damaged, and I can find no trace of eyes. The head is cut off squarely in front, and of the tentacles the upper pair is longer than the lower. The three pairs of short stout tentacular cirri lie at the side of the head and partly conceal the tentacles. The first three pairs of feet are only slightly shorter and thicker than those that follow, for the feet gradually lengthen out and become more slender up to the 6th chaetiger. The first three pairs of feet have neither ventral cirri nor compound chaetae; the remainder have a few simple bristles in addition to the compound chaetae.

Lopadorhynchus krohnii (Clap.), var. **simplex**, var. nov.

Lopadorhynchus krohnii, Fauvel, 1923, p. 185, figs. 68 *a–d*, with synonymy.

St. 104. 31. x. 26. 41° 33′ 30″ S, 17° 58′ 00″ W. 56 (–0) m. Gear **N 100 H**. Two specimens.

St. 267. 23. vii. 27. 24° 31′ 00″ S, 12° 15′ 30″ E. 450–550 (–0) m. Gear **TYF**. One specimen.

St. 268. 25. vii. 27. 18° 37′ 00″ S, 10° 46′ 00″ E. 100–150 (–0) m. Gear **TYF**. One specimen.

REMARKS. These specimens, measuring about 9 mm. by 3 mm. including the feet, correspond in detail to Fauvel's description except in the following particulars. There are no simple bristles behind the 2nd chaetiger. The 3rd chaetiger (Fig. 23, *a*) has the aciculum produced into a slender tip extending well beyond the lips of the chaeta sac. Posteriorly to this the aciculum is normal and the bristles (Fig. 23, *b*) are all compound. I can find no trace of a ventral cirrus in the first two chaetigers.

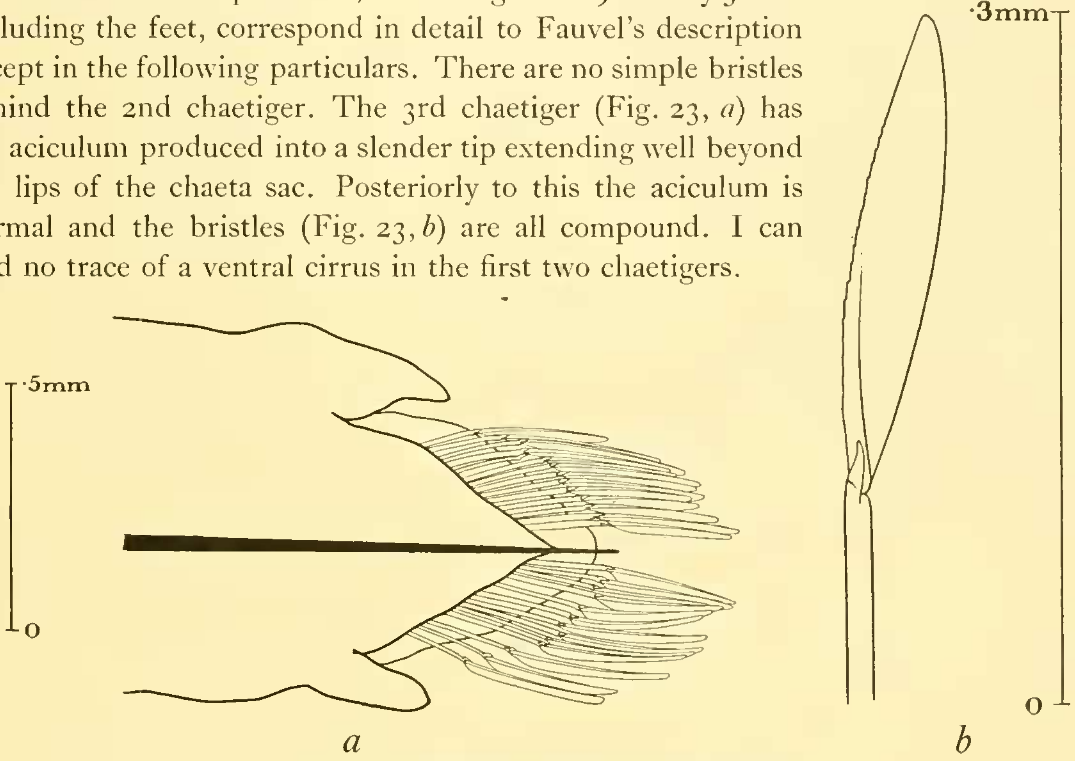

Fig. 23. *Lopadorhynchus krohnii*, var. *simplex*.
a. Third foot. *b*. Compound bristle from third foot.

Family ALCIOPIDAE

REMARKS. Apstein (1900) and Fauvel (1923) have both given admirable accounts, with synonymies, of the majority of the species belonging to this family. When I have nothing to add, I shall do no more than give the references to the descriptions of these authors under the specific names.

Genus **Vanadis**, Claparède

Vanadis longissima (Levinsen).

Apstein, 1900, p. 11, pl. i, figs. 8–9.
Fauvel, 1923, p. 207, fig. 77 *f*, *g*.

St. 220. 21. iv. 27. Drake Strait. 57° 16′ 00″ S, 67° 06′ 00″ W. 126 m. Gear **N 100 H**. One specimen.

St. 287. 19. viii. 27. 2° 49′ 30″ S, 9° 25′ 30″ W. 800–1000 (–0) m. Gear **TYF**. One specimen.

St. 291. 24. viii. 27. 3° 46′ 00″ N, 16° 49′ 00″ W. 100 (–0) m. Gear **TYF**. One specimen.

Description. The specimen from St. 291 consists of three fragments all presumably belonging to the same animal: joined together they give a length of between 50 mm. and 60 mm. with a breadth of about 3 mm. The anterior border of the prostomium is, with the proboscis everted, slightly concave. There are two very large eyes (Fig. 24, *a* and *b*) with their axes pointing laterally. There is a small conical unpaired tentacle and two pairs of lateral tentacles. There are four pairs of tentacular cirri, the first larger than the other three and joined across the ventral surface by a membrane as in *V. formosa*: the fourth pair is very small and rather flattened. The first two pairs of parapodia are modified into sperm vesicles.

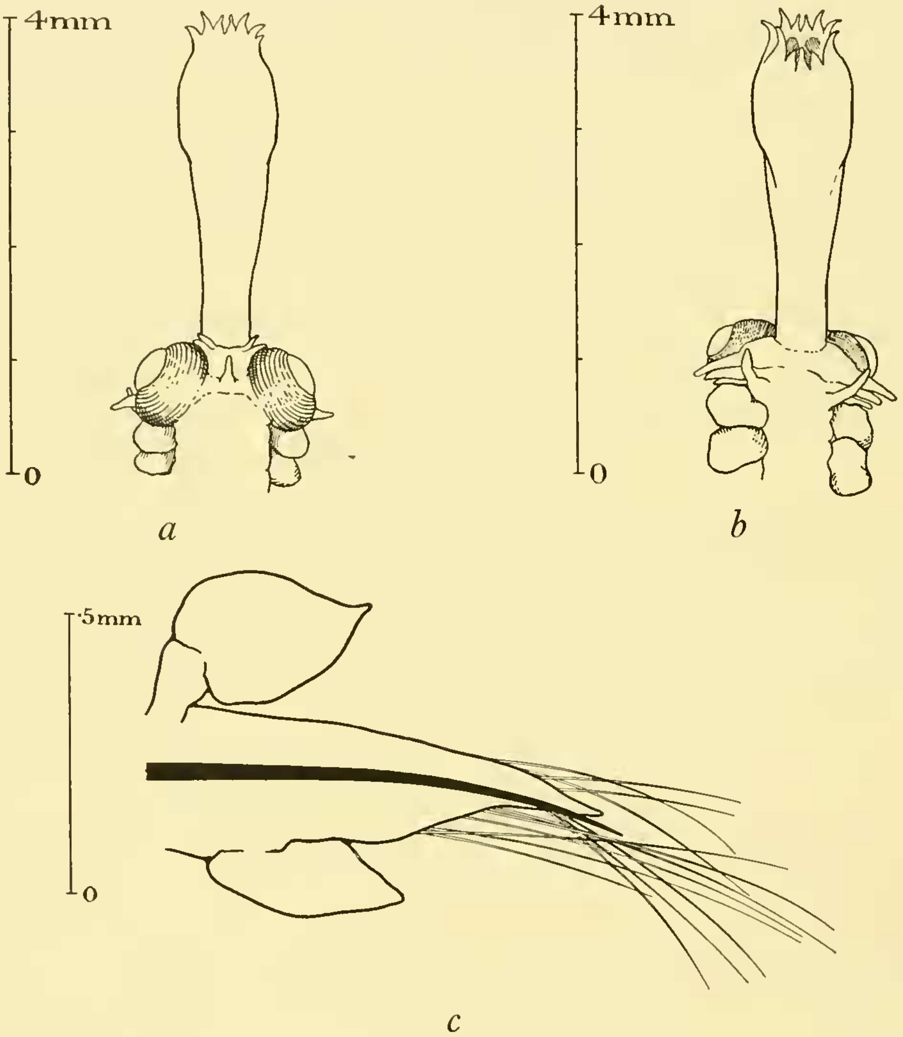

Fig. 24. *Vanadis longissima.*

a. Dorsal view of head. *b.* Ventral view of head. *c.* Middle foot.

The feet (Fig. 24, *c*) are fully developed by about the 7th chaetiger. They consist of a foliaceous dorsal cirrus, a much narrower and more elongated ventral cirrus, and a long conical chaetigerous lobe with a projecting aciculum and a single small cirriform process. The bristles are all of the long compound type.

The distribution of the glands is curious: they occur on every 5th chaetiger up to the 25th and from the 40th to the 60th on every 10th. In the anterior fragment the glands are accompanied by dark brown rings of pigment, running all round the body but fainter in the mid-ventral line. Up to about the 50th chaetiger these rings are two segments deep, but behind the 50th chaetiger they cover one segment only. The glands themselves are very small.

In the posterior fragments they are much larger and occur in groups of 3 or 4 consecutively with one or two glandless segments between each group.

The proboscis is everted and instead of the two long lateral cirriform processes such as occur in *V. formosa*, there are ten small tooth-like papillae, all of about the same size.

The examples from the other two stations consist of a small anterior and a small posterior fragment.

Vanadis formosa, Claparède.

Fauvel, 1923, p. 205, fig. 77 *a–c*.
Apstein, 1900, p. 8, pl. i, figs. 1–6.

St. 85. 23. vi. 26. 33° 07′ 40″ S, 4° 30′ 20″ E. 2000 (–0) m. Gear **N 450**. One specimen.

St. 87. 25. vi. 26. 33° 53′ 45″ S, 9° 26′ 30″ E. 1000 (–0) m. Gear **TYF**. One specimen.

St. 89. 28. vi. 26. 34° 05′ 15″ S, 16° 00′ 45″ E. 1000 (–0) m. Gear **TYF**. One specimen.

St. 102. 28. x. 26. 35° 29′ 20″ S, 18° 33′ 40″ E. 52 m. Gear **N 100 H**. Bottom 1800 m., globigerina ooze. One specimen.

St. 259. 26. vi. 27. 34° 59′ 00″ S, 16° 39′ 00″ E. 170–250 (–0) m. Gear **TYF**. Two specimens.

St. 270. 27. vii. 27. 13° 58′ 30″ S, 11° 43′ 30″ E. 200 (–0) m. Gear **TYF**. One specimen.

St. 282. 12. viii. 27. 1° 11′ 00″ S, 5° 38′ 00″ E. 300 (–0) m. Gear **TYF**. One specimen.

St. 287. 19. viii. 27. 2° 49′ 30″ S, 9° 25′ 30″ E. 800–1000 (–0) m. Gear **TYF**. One specimen.

REMARKS. Benham (1921, p. 58) suggests that both McIntosh (1885, p. 175) and Gravier (1911, p. 65) are mistaken in stating that the bristles of the examples described by them as *V. antarctica* are simple and without articulations. A prolonged study of McIntosh's type specimen has convinced me that as far as the latter author is concerned Benham is right. McIntosh's *Alciopa antarctica* has compound bristles. And in view of the great difficulty of observing the chaetal articulations in some specimens, Gravier may also have been mistaken.

V. antarctica is very close to *V. formosa*, but it seems to be a larger and more massive species and lacks the two lateral processes on the proboscis found in *V. formosa*. In *V. antarctica* they are represented by two papillae slightly larger than the rest. *V. antarctica* is not represented in the present collection. Except for one example of *V. longissima* there is no specimen of *Vanadis* from farther south than 34°.

Genus **Torrea**, Quatrefages

Torrea candida (Delle Chiaje).

Asterope candida, Fauvel, 1923, p. 202, figs. 75 *a–d*.

St. 102. 28. x. 26. 35° 29′ 20″ S, 18° 33′ 40″ E. 104 m. Gear **N 100 H**. Bottom 1800 m., globigerina ooze. One specimen.

St. 294. 25. viii. 27. 4° 33′ 15″ N, 16° 52′ 45″ W. 100–150 (–0) m. Gear **TYF**. One specimen.

REMARKS. The genus *Asterope*, Claparède, 1870, is both preoccupied by *Asterope*, Philippi, in Crustacea and antedated by *Torrea*, Quatrefages, 1850. In the original description the name *Torrea* is spelled with two r's; Quatrefages himself, in his *Histoire des Annelés* (1865), and subsequent authors write *Torea*.

Genus **Callizona**, Greeff

Callizona angelini (Kinberg).

Fauvel, 1923, p. 215, fig. 81 *d–i*, with synonymy.

St. 250. 17. vi. 27. 36° 09′ 00″ S, 5° 33′ 00″ W. 300 (–0) m. Gear **TYF**. Two specimens.

St. 254. 21. vi. 27. 35° 04′ 00″ S, 2° 59′ 30″ E. 200 (–0) m. Gear **TYF**. One specimen.

St. 257. 24. vi. 27. 35° 01′ 00″ S, 10° 18′ 00″ E. 250 (–0) m. Gear **TYF**. One specimen.

St. 268. 25. vii. 27. 18° 37′ S, 10° 46′ E. 100–150 (–0) m. Gear **TYF**. Two specimens.

REMARKS. The tentacular cirri are short and massive: I can find no trace of denticulation on the appendages of the stout bristles. Chamberlin's *Rhynconerella pycnocera* is probably synonymous with this species.

Callizona bongraini, Gravier, from Antarctic waters seems to have, from Gravier's account, long simple capillary swimming bristles, and is therefore perhaps nearer to *Callizonella*, Apstein, *sensu* Fauvel, than to *Callizona* in which the long swimming chaetae are compound.

Genus **Greeffia**, McIntosh

Greeffia oahuensis, McIntosh.

McIntosh, 1885, p. 182, pl. xxviii, figs. 5–7; pl. xxxii, fig. 11; pl. xv A, fig. 4.

St. 273. 31. vii. 27. 9° 38′ 00″ S, 12° 42′ 30″ E. 200–230 (–0) m. Gear **TYF**. One specimen.

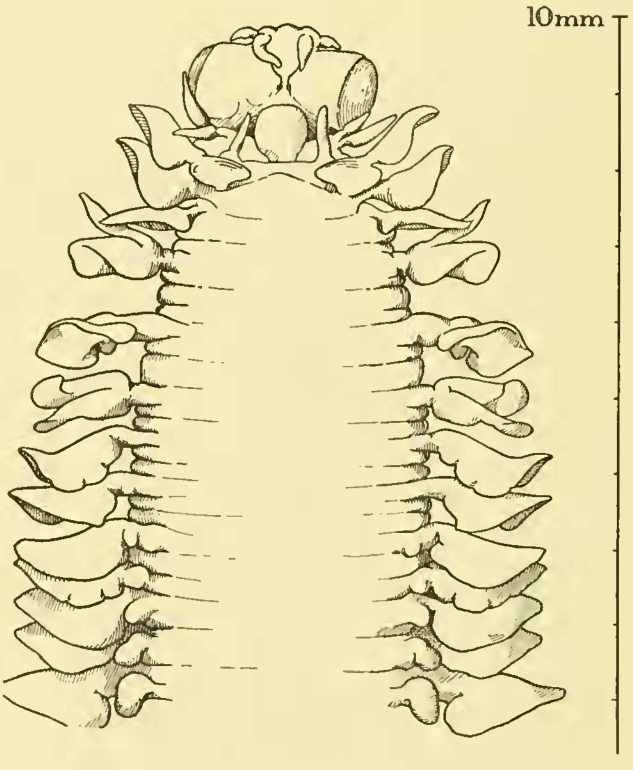

Fig. 25. *Greeffia oahuensis*. Ventral view of anterior end.

St. 288. 21. viii. 27. 00° 56′ 00″ S, 14° 08′ 30″ W. 250 (–0) m. Gear **TYF**. One specimen.

St. 289. 23–24. viii. 27. 3° 04′ 45″ N, 16° 52′ 00″ W. 125–225 (–0) m. Gear **TYF**. One specimen.

REMARKS. There are three pairs of tentacular cirri. The ventral pedal glands are in these specimens colourless, and reach their full development about the 12th–15th chaetigers. *Greeffia celox* (Greeff) has four pairs of tentacular cirri. I figure the anterior end seen from below (Fig. 25).

Genus **Rhynconerella**, Costa

Rhynconerella fulgens, Greeff.

Fauvel, 1923, p. 210, fig. 79 *a–d*, with synonymy.

St. SS 33. 20. i. 28. 60° 52′ S, 25° 59′ W. 250–100 m. Gear **N 70 V**. Three specimens.

St. SS 53. 16. ii. 28. 61° 30′ 00″ S, 23° 20′ 00″ W. 250–100 m. Gear **N 70 V**. One specimen.

29° 27′ N, 15° 07′ W. 0–900 m. One specimen.

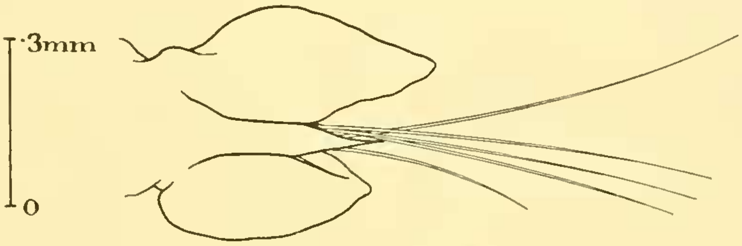

Fig. 26. *Rhynconerella fulgens*. Middle foot.

REMARKS. The dorsal cirrus of the 3rd segment is about twice the length of the other tentacular cirri: there is only a single acicular chaeta in the middle feet (Fig. 26). Ehlers records this species from 58° 29′ S, 89° 58′ E.

According to Chamberlin (1919, p. 143) *Rhynconerella gracilis* is the type species of Costa's genus. *R. gracilis* is the same as *Callizona nasuta*, Greeff, the type species of Greeff's *Callizona*, which genus therefore becomes a synonym of *Rhynconerella*. This means that all the species which previous authors grouped under *Callizona* are now to change their generic name to *Rhynconerella*, and Chamberlin has supplied *Plotohelmis* as the generic name for the species that previous authors have grouped under *Rhynconerella*. *Rhynconerella fulgens*, Greeff, is presumably the type species of Chamberlin's *Plotohelmis*. It seems to me that this is an occasion when to adhere to the rule of priority would only lead to confusion, so I retain the generic names *Callizona* and *Rhynconerella* in the sense in which they are used by Apstein, Fauvel and others.

The example from 29° 27′ N, 15° 07′ W is in two pieces, which together measure about 15 mm. in length. The condition precludes a satisfactory examination, but the shape of the body is more elongated and slender than in the Antarctic specimens. They may possibly belong to the longer and more slender *Rhynconerella alata* (Chamberlin). I can, however, discover no distinction in the feet between this specimen and *R. fulgens*.

Genus **Alciopa**, Audouin and M.-Edwards

Alciopa cantrainii (Delle Chiaje).

Apstein, 1900, p. 7, pl. v, fig. 53.
Fauvel, 1923, p. 203, fig. 76 *a–e*.

St. 100. 2. x. 26. 33° 20′ 00″ to 33° 46′ 00″ S, 15° 18′ 00″ to 15° 08′ 00″ E. 475 (–0) m. Gear **TYF**. One specimen.

St. 287. 19. viii. 27. 2° 49′ 30″ S, 9° 25′ 30″ W. 800–1000 (–0) m. Gear **TYF**. Four specimens.

St. 289. 23–24. viii. 27. 3° 04′ 45″ N, 16° 52′ 00″ W. 125–225 (–0) m. Gear **TYF**. One specimen.

REMARKS. In the specimen from St. 100 the ventral cirri of the first 25 chaetigers are swollen with a white opaque inclusion, which proves to be sperm; and from the 10th to the 25th chaetigers there are just below the feet conspicuous white patches also filled with genital products.

The type specimen of McIntosh's *A. quadrioculata* is useless for purposes of identification or comparison.

Family TOMOPTERIDAE

Genus **Tomopteris**, Eschscholtz

Tomopteris (Tomopteris) carpenteri, Quatrefages.

Benham, 1921, p. 61, pl. viii, figs. 64–66, and 1929, p. 191, pl. ii, figs. 18–23.

St. 17. 4. iii. 26. 46 miles N 46° E of Jason Light, South Georgia. 250–100 m. Gear **N 70 V**. One specimen.

St. 36. 18. iii. 26. 38 miles N 39° E of Jason Light, South Georgia. 0–5 m. Gear **N 100 H**. One specimen. 50 (–0) m. Gear **N 100 H**. One specimen. 90 (–0) m. Gear **N 100 H**. Two specimens.

St. 37. 18–19. iii. 26. 28 miles N 36° E of Jason Light, South Georgia. 90 (–0) m. Gear **N 100 H**. Seventeen specimens.

St. 38. 19. iii. 26. 18·5 miles N 33° E of Jason Light, South Georgia. 0–5 m. Gear **N 100 H**. Two specimens.

St. 41. 28. iii. 26. 16½ miles N 39° E of Barff Point, South Georgia. 0–5 m. Gear **N 100 H**. Three specimens.

St. 114. 12. xi. 26. 52° 25′ 00″ S, 9° 50′ 00″ E. 90 m. Gear **N 100 H**. Five specimens.

St. 118. 19. xi. 26. 53° 07′ 00″ S, 1° 26′ 00″ W. 100 m. Gear **N 100 H**. Three specimens.

St. MS 11. 14. ii. 25. ¼ mile SSW of Hope Point, East Cumberland Bay, South Georgia. 9 m. Gear **NC 50 H**. One specimen.

St. MS 19. 9. iv. 25. 3 miles SW of Merton Rock, East Cumberland Bay, South Georgia. 160 (–0) m. Gear **NC 50 V**. One specimen.

St. MS 22. 9. iv. 25. 1·3 miles N of Dartmouth Point, East Cumberland Bay, South Georgia. 40–0 m. Gear **NC 50 V**. One specimen.

St. MS 25. 13. iv. 25. East Cumberland Bay, South Georgia. 4½ cables NE to 1¼ cables N × W of Hobart Rock. 10 m. Gear **NC 50 H**. One specimen.

St. MS 31. 30. iv. 25. 2 miles N ½ E of Macmahon Rock, East Cumberland Bay, South Georgia. 40–0 m. Gear **NC** 50 **V**. One specimen.

St. MS 32. 1. v. 25. East Cumberland Bay, South Georgia. 4½ cables NE of Hobart Rock to 1½ miles SSE of Hope Point. 0–5 m. Gear **NC** 50 **H**. One specimen.

St. MS 34 A. 2. v. 25. East Cumberland Bay, South Georgia. 3¼ miles SSW of Merton Rock to 4½ cables NE of Hobart Rock. 20 m. Gear **NC** 50 **H**. One specimen.

St. MS 62. 24. ii. 26. East Cumberland Bay, South Georgia. ½ cable E to 3¾ cables S of Hobart Rock. 0–5 m. **N** 70 **H**. Five specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. One specimen.

St. SS 6. 29. xi. 27. 54° 20′ 00″ S, 29° 31′ 00″ W. 137–0 m. Gear **N** 100 **B**. Two specimens.

St. SS 10. 2. xii. 27. 54° 30′ 20″ S, 29° 38′ 43″ W. 100–0 m. Gear **N** 100 **B**. One specimen.

St. SS 12. 6. xii. 27. 54° 30′ 20″ S, 29° 50′ 20″ W. 122–0 m. Gear **N** 100 **B**. One specimen.

St. SS 16. 14. xii. 27. 55° 00′ 00″ S, 27° 29′ 00″ W. 104–0 m. Gear **N** 100 **B**. One specimen.

St. SS 17. 14. xii. 27. 55° 00′ 00″ S, 27° 43′ 00″ W. 99–0 m. Gear **N** 100 **B**. One specimen. Also Net 70 **B**. One specimen.

St. SS 19. 19. xii. 27. 54° 51′ 30″ S, 27° 38′ 00″ W. 137–0 m. Gear **N** 70 **B**. One specimen.

St. SS 21. 21. xii. 27. 56° 12′ 00″ S, 25° 40′ 00″ W. 250–100 m. Gear **N** 70 **V**. Two young specimens.

St. SS 22. 22. xii. 27. 55° 56′ 00″ S, 25° 56′ 00″ W. 95–0 m. Gear **N** 100 **B**. Two specimens. Net 70 **B**. One specimen.

St. SS 32. 18. i. 28. 60° 57′ 00″ S, 25° 57′ 30″ W. 115 (–0) m. Gear **N** 70 **B**. One specimen. Gear **N** 100 **B**. One specimen.

St. SS 57. 23. ii. 28. 61° 49′ 30″ S, 23° 28′ 00″ W. 95–0 m. Gear **N** 70 **B**. One specimen. Gear **N** 100 **B**. One specimen.

REMARKS. Some of these Tomopterids are large and handsome creatures measuring about 65 mm. by 25 mm. including the feet. They correspond in detail with Benham's description of some examples which he attributes to Quatrefages' species: this last is not identifiable with certainty from the scanty description. Eyes are invisible in the larger of my examples and present as a pair of minute black dots in the smaller. There is normally no median notch in the prostomium, but in a few of the smaller examples there appears to be a very slight indentation, which may be an artefact. The hyaline glands are marked by a conspicuous brown patch of colour, and both they and the large ventral chromophil glands can be seen without removing the foot or staining.

I believe that the *T. planktonis* of Apstein from northern waters is identical with this species. The shape of the head and the position of the pedal glands is the same. The only differences that I can discover are size—*T. planktonis* is recorded up to a length of about 10 mm. only—and degree of pigmentation of the hyaline glands: in *T. planktonis* the hyaline glands are described as transparent and little pigmented. If the two species are identical, *T. carpenteri* has priority provided that we accept Benham's interpretation of it. The specimens of *T. carpenteri* described by McIntosh (1885) from the neighbourhood of Kerguelen belong to the same species as those described by Benham.

NOTE. The above remarks were printed before Augener's paper on the plankton of the Weddell Sea reached me. Augener (1929, p. 303 ff.) claims that *T. carpenteri* and *T. planktonis* are distinct species, both with representatives in Antarctic waters, and on p. 306 summarises what he believes to be the distinguishing characters. I cannot here discuss Augener's conclusions, but if he be followed, the examples of *T. planktonis* in the present collection are those from the following stations:—MS 11, 19, 22, 25, 31, 32, 34 A, 62 and SS 21. It is noteworthy that these are all coastal stations.

Tomopteris (Tomopteris) septentrionalis, Quatrefages ex Steenstrup.

Rosa, 1908, p. 297, pl. xii, fig. 17.
Fauvel, 1923, p. 224, fig. 84 *d*.
Benham, 1929, p. 195.
Tomopteris (*Tomopteris*) *eschscholtzi*, Greeff.
Rosa, 1908, p. 306, pl. xii, figs. 21–22.

St. 69. 25. v. 26. 45° 06′ 00″ S, 49° 00′ 00″ W. 45 (–0) m. Gear **N 70 H**. Seven specimens (?). Specimens in bad condition.

St. MS 26 B. 15. iv. 25. East Cumberland Bay, South Georgia. $4\frac{1}{2}$ cables NE to $1\frac{1}{4}$ cables N × W of Hobart Rock. 10 m. Gear **NC 50 H**. One specimen.

St. SS 6. 29. xi. 27. 54° 20′ 00″ S, 29° 31′ 00″ W. 137 (–0) m. Gear **N 100 B**. Three specimens.

St. SS 10. 2. xii. 27. 54° 30′ 20″ S, 29° 38′ 43″ W. 100 (–5) m. Gear **N 70 B**. Three specimens. Gear **100 B**. Six specimens.

St. SS 16. 14. xii. 27. 55° 00′ 00″ S, 27° 29′ 00″ W. 104 (–0) m. Gear **N 100 B**. Three specimens. Net **70 B**. One specimen.

St. SS 17. 14. xii. 27. 55° 00′ 00″ S, 27° 43′ 00″ W. 99 (–0) m. Gear **N 100 B**. Four specimens.

St. SS 19. 19. xii. 27. 54° 51′ 30″ S, 27° 38′ 00″ W. 137 (–0) m. Gear **N 100 B**. Two specimens.

St. SS 20. 19. xii. 27. 54° 52′ 30″ S, 27° 36′ 30″ W. 101 (–0) m. Gear **N 100 B**. Three specimens.

St. SS 21. 21. xii. 27. 56° 12′ 00″ S, 25° 40′ 00″ W. 250–100 m. Gear **N 70 V**. Two specimens. 100–50 m. Two young specimens.

St. SS 24. 24. xii. 27. 56° 49′ 00″ S, 25° 35′ 00″ W. 805 (–0) m. Gear **N 100 B**. Fifteen specimens.

St. SS 32. 18. i. 28. 60° 57′ 00″ S, 25° 57′ 30″ W. 115 (–0) m. Gear **N 70 B**. One specimen. Gear **N 100 B**. One specimen.

St. SS 33. 21. i. 28. 60° 52′ 00″ S, 25° 59′ 00″ W. 250–100 m. Gear **N 70 V**. Two specimens. 50–0 m. One specimen.

St. SS 35. 21. i. 28. 60° 49′ 00″ S, 26° 32′ 00″ W. 119 (–0) m. Gear **N 100 B**. One specimen.

St. SS 44. 3. ii. 28. 62° 23′ 00″ S, 27° 04′ 00″ W. 102 (–0) m. Gear **N 100 B**. One specimen.

St. SS 56. 22. ii. 28. 61° 49′ 00″ S, 23° 54′ 00″ W. 50 (–0) m. Gear **N 50 V**. One specimen.

REMARKS. As Malaquin and Carin (1922, p. 39) have already noted, there is no means of distinguishing between *T. eschscholtzi* and *T. septentrionalis* except the presence in the latter species of very indistinct hyaline glands in the ventral pinna.

In the present collection, among the examples from a single haul, it frequently happens that some can be shown after careful preparation to have indistinct hyaline glands and others cannot. Moreover, in a considerable number the state of fixation is such that, while it allows the presence of the apical chromophil glands to be seen, it renders impracticable the much more intensive examination necessary for the discovery of the hyaline glands. It therefore seems reasonable to suppose that *T. eschscholtzi* is a *T. septentrionalis* in which the hyaline glands were not or could not be seen. It is also not unlikely that the distinctness of the hyaline glands in *T. septentrionalis* is dependent on their functional activity. The alternative is that I should attribute all the examples that for reasons of preservation, glandular activity, etc., have no apparent hyaline glands to *T. eschscholtzi* and the rest to *T. septentrionalis*, a most unsatisfactory procedure in view of the fact that in occurrence, habitat and structure they are otherwise indistinguishable.

This is a considerably smaller species than *T. carpenteri* together with which it occurs in large numbers around South Sandwich. It is noteworthy that whereas *T. carpenteri* appears to be equally common round South Georgia, from the present collection only a single *T. septentrionalis* was found there. The anterior pair of appendages was not present in any of the specimens.

Tomopteris (Tomopteris) cavallii, Rosa.

Fauvel, 1923, p. 222, fig. 84 *a*.
Benham, 1929, p. 197, pl. ii, figs. 27–28.

St. 89. 28. 6. 26. 34° 05′ 15″ S, 16° 00′ 45″ E. 1000 (–0) m. Gear **TYF**. Four specimens.

REMARKS. In two of these examples, measuring about 12 mm. by 4 mm. including the feet, a pair of small anterior chaetigerous appendages is present: they are feebly developed and probably about to disappear: Fauvel in his diagnosis writes, "1^er^ appendice sétigère manque, même chez les jeunes." There is a pair of large brown eyes at the centre of two ganglionic masses. There are no hyaline glands. The gonads are situated in the dorsal ramus of the foot but in a ripe female some of the ova had penetrated into the ventral ramus also.

Tomopteris (Tomopteris) nisseni, Rosa.

Fauvel, 1923, p. 222, fig. 83 *e*, *g*.

St. 78. 12. vi. 26. 35° 18′ 00″ S, 19° 01′ 10″ W. 1000 (–0) m. Gear **TYF**. Two specimens.
St. 87. 25. vi. 26. 33° 53′ 45″ S, 9° 26′ 30″ E. 1000 (–0) m. Gear **TYF**. Two specimens.
St. 89. 28. vi. 26. 34° 05′ 15″ S, 16° 00′ 45″ E. 1000 (–0) m. Gear **TYF**. Three specimens.
St. 267. 23. vii. 27. 24° 31′ 00″ S, 12° 15′ 30″ E. 450–550 (–0) m. Gear **TYF**. One specimen.
St. 282. 12. viii. 27. 1° 11′ 00″ S, 5° 38′ 00″ E. 300 (–0) m. Gear **TYF**. One specimen.
St. 288. 21. viii. 27. 00° 56′ 00″ S, 14° 08′ 30″ W. 250 (–0) m. Gear **TYF**. One specimen.
St. 293. 24. viii. 27. 4° 18′ 15″ N, 16° 51′ 00″ W. 100–120 (–0) m. Gear **TYF**. One specimen.

REMARKS. The arrangement of the hyaline glands is very variable in this species (see Malaquin and Carin, 1922, p. 36). In a number of the examples from the various stations the pinnules are frayed out in a curious way, a condition probably due to improper fixation, and in them the arrangement of the glands cannot be studied, but the occurrence of the ventral glands from the 4th foot and of the dorsal from the 8th–9th, as recorded by Southern, seems to be the more usual. Malaquin and Carin maintain that there is no definite dividing line between the pinnule and the trunk of the foot, and recognise an outer wrinkled part of the pinnule and an inner smooth part. I suggest that the limits of the pinnules are largely, if not entirely, a matter of fixation.

Sub-genus **Johnstonella**, Gosse

Tomopteris (Johnstonella) kempi, n.sp.

St. 4. 30. i. 25. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 0–10 m. Gear N 100 H. Seven specimens.

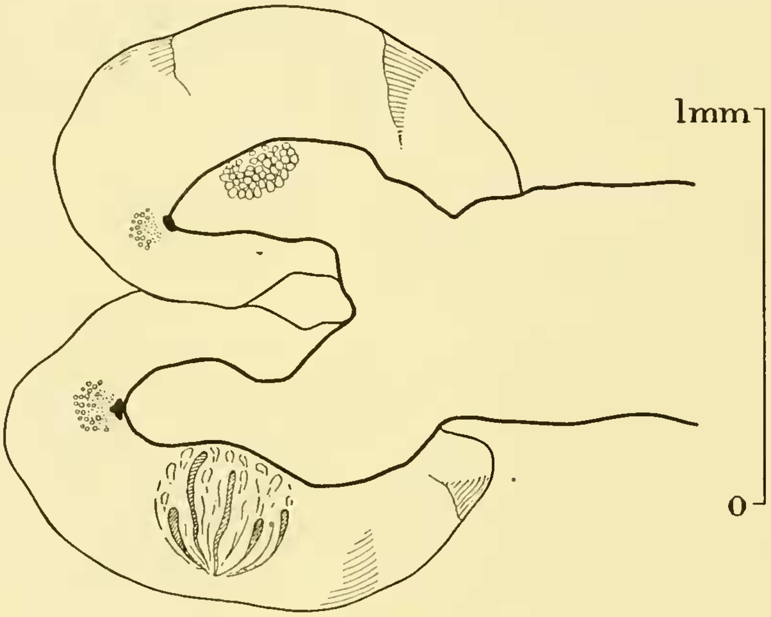

Fig. 27. *Tomopteris kempi.* Middle foot.

Description. The largest of these specimens measures 55 mm. by 20 mm. including the feet (there are 16 pairs of parapodia excluding the tail segments): among them there are two young specimens measuring 12 mm. by 5 mm.

The body has a rather swollen appearance and is very transparent: there is a moniliform tail of seven or eight segments in which the feet are reduced to minute processes near the segmental constrictions. The frontal horns curve backwards and there is a very small notch between them. The neck is fairly stout. The anterior chaetigerous processes are absent and the posterior are in the fully grown specimens about three-quarters the length of the body, and in the young specimens about a third as long again as the body.

The brain is cordiform and the eyes are only visible when the specimen is cleared.

Vibratile pits are present but their exact course cannot be seen because of the distortion of the prostomium in all the examples, caused by the eversion of the proboscis.

The upper end of the latter is produced into a kind of peak and overhangs the lower end.

The feet (Fig. 27) are very large and prominent and the pinnules small in comparison. On the first two feet I can find no trace of a rosette either on the pedal trunks or on the pinnules. On the third and subsequent feet at the point where the trunk of the foot at its apex merges into the pinnule there is a rosette gland on both dorsal and ventral rami. It has the appearance of a small black oculiform spot and beyond it towards the edge of the pinnule is an area filled with brown granules.

I can see no spindle of fine tubules such as is sometimes visible in hyaline glands; moreover, its position in close apposition to the trunk of the foot and the fact that it faces outwards towards the edge of the pinnule, and not inwards towards the foot, strengthen the presumption that it is a true rosette and not a hyaline gland. On the lower part of the pinnule of the ventral ramus is a cupuliform chromophil gland which varies considerably in size in the different specimens. I can find no trace of what Rosa calls an *aculeo*.

All the species of *Johnstonella* with a tail hitherto described have rosettes on the trunks of the first two feet or an *aculeo* or both. These structures are absent from the present species.

Chamberlin has described three species of *Tomopteris*, *T. innatans*, *T. eura* and *T. idiura*; Treadwell has also given an account of two further species, *T. opaca* and *T. tentaculata*. Unfortunately the nature and position of the pedal glands are not specified with sufficient precision for these species to be capable of inclusion within Rosa's system of classification.

NOTE. This species is named after Dr Stanley Kemp, the distinguished leader of the expedition.

Family TYPHLOSCOLECIDAE

Genus **Sagitella**, Wagner

Sagitella kowalewskii, Wagner.

Fauvel, 1923, p. 228, figs. 85 *a–c*.
Benham, 1927, p. 80, pl. ii, figs. 33 and 34.

St. 17. 4. iii. 26. 46 miles N 46° E of Jason Light, South Georgia. 500–250 m. Gear **N 70 V**. One specimen.

St. 78. 12. vi. 26. 35° 18′ 00″ S, 19° 01′ 10″ W. 1000 (–0) m. Gear **TYF**. One specimen.

St. 85. 23. vi. 26. 33° 07′ 40″ S, 4° 30′ 20″ E. 2000 (–0) m. Gear **N 450**. One specimen.

St. 89. 28. vi. 26. 34° 05′ 15″ S, 16° 00′ 45″ E. 1000 (–0) m. Gear **TYF**. Two specimens.

St. 116. 14. xi. 26. 54° 30′ 00″ S, 5° 34′ 00″ E. 110 (–0) m. Gear **N 100 H**. Two specimens.

St. 208. 7. iv. 27. Off Livingston Island, South Shetlands. 62° 49′ 30″ S, 60° 10′ 30″ W. 800 (–0) m. Gear **TYF**. One specimen.

REMARKS. These specimens are conspecific with the example described and clearly figured by Benham from the Ross Sea. I share Benham's doubt whether they should be referred to Wagner's North Atlantic species, and unfortunately I have no example with which to compare them. Most of them are larger than previously recorded examples, being from 15 mm. to 25 mm. in length. The number of segments is 22 to 25 and is fairly constant.

The collector made the following notes on the colour of the living individuals: St. 78, "colourless transparent"; St. 89, "transparent"; St. 85, "white opaque."

Sagitella cornuta, Ehlers.

Ehlers, 1913, p. 527, pl. xxxix, figs. 8–14.

St. 258. 25. vi. 27. 35° 03′ 30″ S, 13° 55′ 00″ E. 320–450 m. Gear **TYF**. One specimen.

REMARKS. This single specimen has 23 segments and a length of 31 mm. It is easily distinguishable by the paired digitiform processes arising from the nuchal organs behind the head.

Sagitella lobifera, Ehlers.

Ehlers, 1912, p. 24, pl. iii, figs. 1–4.

St. 78. 12. vi. 26. 35° 18′ 00″ S, 19° 01′ 10″ W. 1000 (–0) m. Gear **TYF**. Two specimens.

St. 85. 23. vi. 26. 33° 07′ 40″ S, 4° 30′ 20″ E. 2000 (–0) m. Gear **N 450**. One specimen.

St. 100. 3–4. x. 26. 33° 20′ 00″ to 33° 46′ 00″ S, 15° 18′ 00″ to 15° 08′ 00″ E. 2500–2000 m. Gear **TYF**. One specimen.

REMARKS. I have compared these specimens with Ehlers' type and am able to modify his account of the nuchal processes on the head. There are only three lobes, a small crescentic lobe in the middle and on either side two longer pinnate lobes with two or three branches on each side of the main stem. Moreover, as Ehlers' figure indicates, the parapodia and the bristles are more prominent and clearly defined than in the other species of the genus. The bristles begin on the 6th foot and not on the 10th–12th as they do in *S. kowalewskii*.

The collector describes the living individuals as "deep scarlet" (St. 100) and "uniformly deep scarlet" (St. 78).

Genus **Typhloscolex**, Busch

Typhloscolex mülleri, Busch.

Fauvel, 1923, p. 226, fig. 85 *f–h*.

St. SS 53. 16. ii. 28. 61° 30′ 00″ S, 23° 20′ 00″ W. 250–100 m. Gear **N 70 V**. One specimen.

REMARKS. A single example which I believe to belong to this species. The cirri are rather large, and it should perhaps be referred to *T. phyllodes*, Reibisch. Both species have been recorded from the Antarctic by Ehlers.

Genus **Travisiopsis**, Levinsen

Travisiopsis sp.

St. 100. 3–4. x. 26. 33° 20′ 00″ to 33° 46′ 00″ S, 15° 18′ 00″ to 15° 08′ 00″ E. 2500–2000 m. Gear **TYF**. One specimen.

Remarks. The condition of this single example precludes a satisfactory examination. It is a large specimen with 25 feet and measures 37 mm. in length. It seems to be very close to *T. levinseni*, Southern, in the shape of the nuchal processes and in the very wide insertion of the cirri: but the anal cirri are not spatulate. They are wider at the base than at the end and the tips are bluntly rounded: they are supported by a hyaline process. The collector describes the living individual as "semi-transparent orange."

Family HESIONIDAE

Genus **Orseis**, Ehlers

Orseis sp. juv.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NCS** and **NRL**. Twenty specimens.

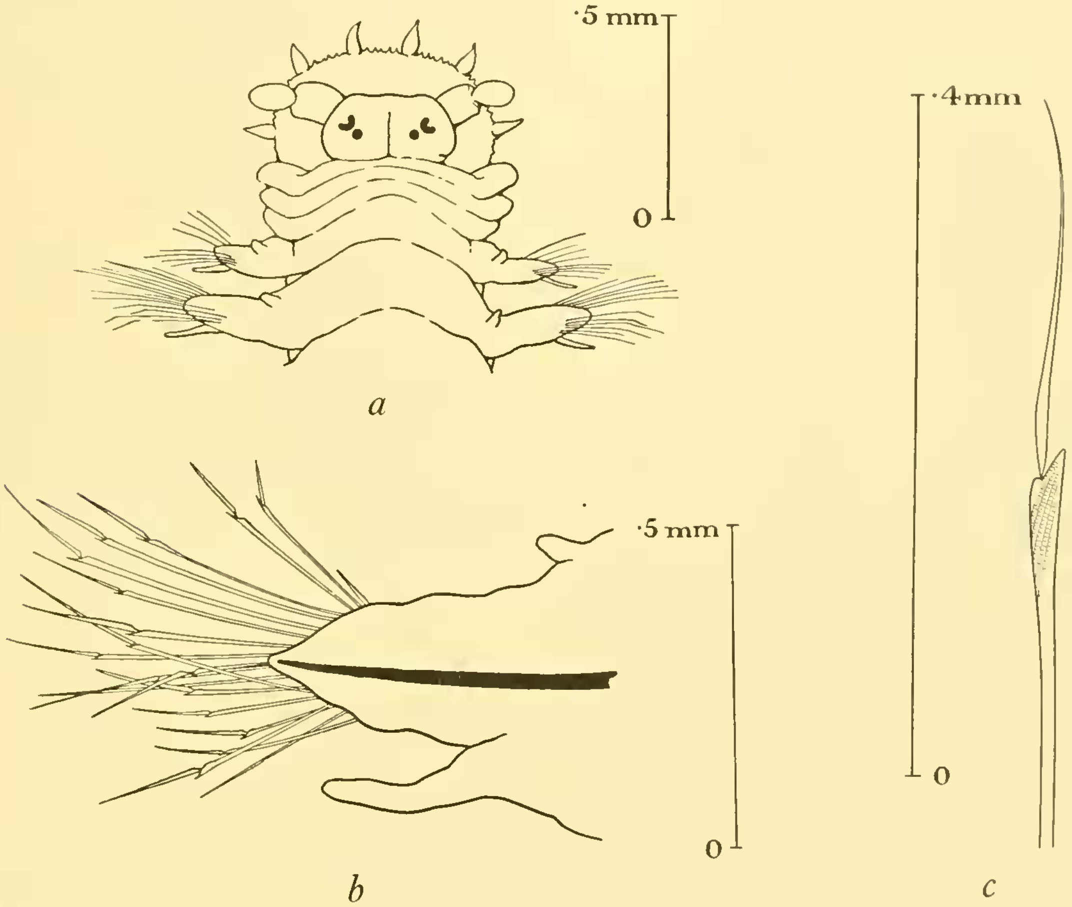

Fig. 28. *Orseis*, sp. Juv.
a. Head and anterior segments. *b*. Foot. *c*. Bristle.

Description. A score of examples of a post-larval Hesionid with about 15 chaetigers. The average size is about 4 mm. by ·5 mm. excluding the feet. There are no colour markings. The prostomium (Fig. 28, *a*) is rectangular, about twice as broad as long, with two pairs of almost contiguous brown eyes. At the outer ends of the head there is a pair of small biarticulate palps. There are no tentacles, nor tentacular cirri. Behind the head there are two or three achaetous segments and then a foot on each side about half the size of the normal feet. The dorsal cirri are rudimentary, being represented by small projections on the upper side of the foot: the ventral cirri are digitiform and reach to the end of the foot.

The feet (Fig. 28, *b*) are triangular in outline with a central aciculum and a bundle of compound bristles (Fig. 28, *c*) with very long slender blades: the apex of the blades curls over into a hook and there is a second tooth, the point of which is almost in contact with the point of the hook. The pharynx is unarmed and crowned with a circle of about 10 large papillae separated by rows of minute papillae.

REMARKS. I have provisionally assigned these postlarval Hesionids to *Orseis*: they cannot be the *O. mathai*, Gravier, from Port Charcot, because Gravier's specimens measured only 3½ mm. in length and were at a much later stage of development than the present examples, which are slightly larger. The compound chaetae, biarticulate palps and uniramous feet bring this form nearer to *Orseis* than to any other genus.

Genus **Leocrates**, Kinberg

Leocrates diplognathus, Monro.

Monro, 1926, p. 313, text-figs. 1 and 2.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

REMARKS. A single specimen measuring 24 mm. by 3 mm. without the feet. It has the large wing-like folds behind the prostomium, and the double upper jaw-plates described for the examples from the China Sea, but the notopodium begins with the 4th chaetiger instead of the 5th. The *L. greeffianus*, Augener (1918, p. 219), may be identical with this species, but the prostomial wings seem little developed and Augener gives no account of the jaws.

Family SYLLIDAE

Genus **Pionosyllis**, Malmgren

Pionosyllis comosa, Gravier.

Gravier, 1907, p. 15, pl. ii, figs. 12–13.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. One specimen.

REMARKS. A single damaged example corresponding to Gravier's description.

Pionosyllis maxima, n.sp.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Three specimens.

Description. A considerable number of small fragments which probably constituted three individuals. The largest fragment measures 21 mm. by 2 mm. without the feet and is composed of 59 chaetigers. The body is massive and arched dorsally. The colour in spirit is pale yellow with vivid red-brown transverse bands across the back: this banding is more intense in the forepart of the body than behind.

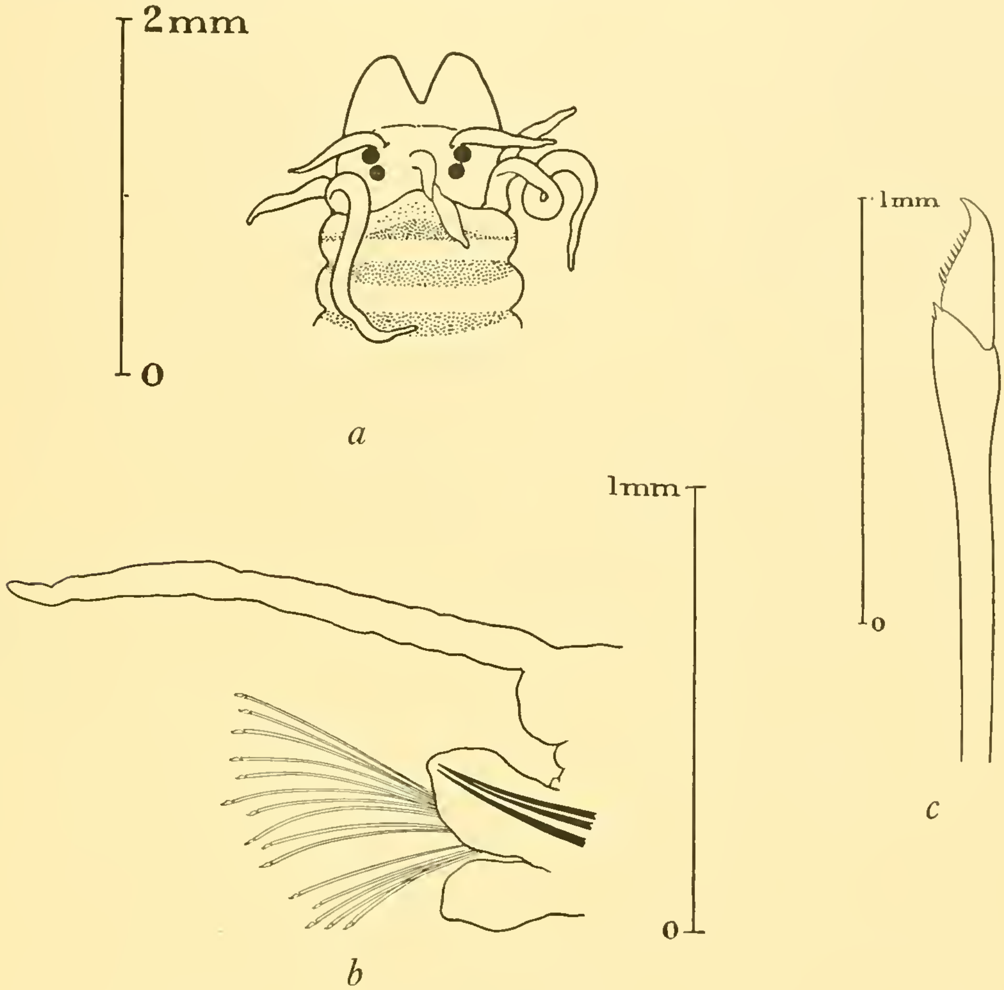

Fig. 29. *Pionosyllis maxima.*
a. Head. *b.* Foot. *c.* Bristle.

The palps are fused at their base and the prostomium (Fig. 29, *a*) is broader than long and rectangular. There are two pairs of almost contiguous eyes, one directly behind the other. The three tentacles are slightly longer than the prostomium: the median is inserted in the middle of the prostomium and the laterals further forward in front of the eyes. The prostomium is deeply notched behind and the notch is hidden by a flap-like prolongation of the buccal segment.

There are two pairs of tentacular cirri, the dorsal almost twice the length of the ventral: the dorsal cirrus of the 1st chaetiger is the longest appendage of the body.

The subsequent dorsal cirri are alternately long and short, the longer being about twice the length of the feet including the bristles. Just below the dorsal cirri swimming bristles are beginning to appear. The chaetal lobe (Fig. 29, *b*) is roughly triangular, the apex of the triangle being formed by the tips of the three acicula above the bristles. The bristles (Fig. 29, *c*) have long slender shafts with simple unidentate hooked blades. The ventral cirri are massive processes comparable, as in Gravier's *Pionosyllis comosa*, with the chaetal lobe.

The pharynx is armed with a single large tooth and as far as I can see has no crown of papillae: it reaches to the 10th chaetiger and the proventriculus to the 24th.

Remarks. This species is characterised by its large size, its distinctive dorsal colour bands and its unidentate chaetal blades. I know no other *Pionosyllis* that has this combination of characters. It may, however, represent the epitocous phase of the closely allied *P. stylifera*, Ehlers, but the partly sexually modified specimens from Auckland Island attributed to Ehlers' species by Augener (1924, p. 50) have a different colour pattern and a number of bristles with linear end-pieces, absent in my examples.

Genus **Eusyllis**, Malmgren

Eusyllis kerguelensis, McIntosh.

McIntosh, 1885, p. 191, pl. xxix, fig. 4; pl. xxxiii, fig. 3; pl. xv a, fig. 13.
Gravier, 1907, p. 17, pl. ii, figs. 14–16.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. Three specimens.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. One specimen.

St. 56. 16. v. 26. Sparrow Cove, Port William, East Falkland Island. 1½ cables N 50° E of Sparrow Point. 10½–16 m. Gear **BTS**. One specimen.

St. 57. 16. v. 26. Port William, East Falkland Island. 5½ cables S 20° W of Sparrow Point. 15 m. Gear **BTS**. One specimen.

St. WS 72. 5. iii. 27. 51° 07′ 00″ S, 57° 34′ 00″ W. 95 m. Gear **OTC**. Bottom: sand and shell. One specimen.

Remarks. The body is very massive and much arched dorsally as in McIntosh's description. The prostomium (Fig. 30, *a*) is broad and has a median posterior cleft, but the transverse prostomial ridges are not equally visible in all these specimens. The two uppermost bristles (Fig. 30, *b*) in every foot (Fig. 30, *c*) are long and slender and resemble *Ehlersia* bristles. In McIntosh's type the two uppermost bristles are also longer and more slender than the rest, but they do not differ from the rest to the same extent as the homologous bristles in these specimens, which are nearer to those described as *E. kerguelensis* by Willey in his 'Southern Cross' report than they are to McIntosh's type specimen. It is possible that there are two closely allied species of *Eusyllis* with broad heads, massive dorsally-arched bodies and dorsal parapodial languets, but differing in the character of the prostomium and in the upper bristles.

The specimen from St. 56 has swimming chaetae.

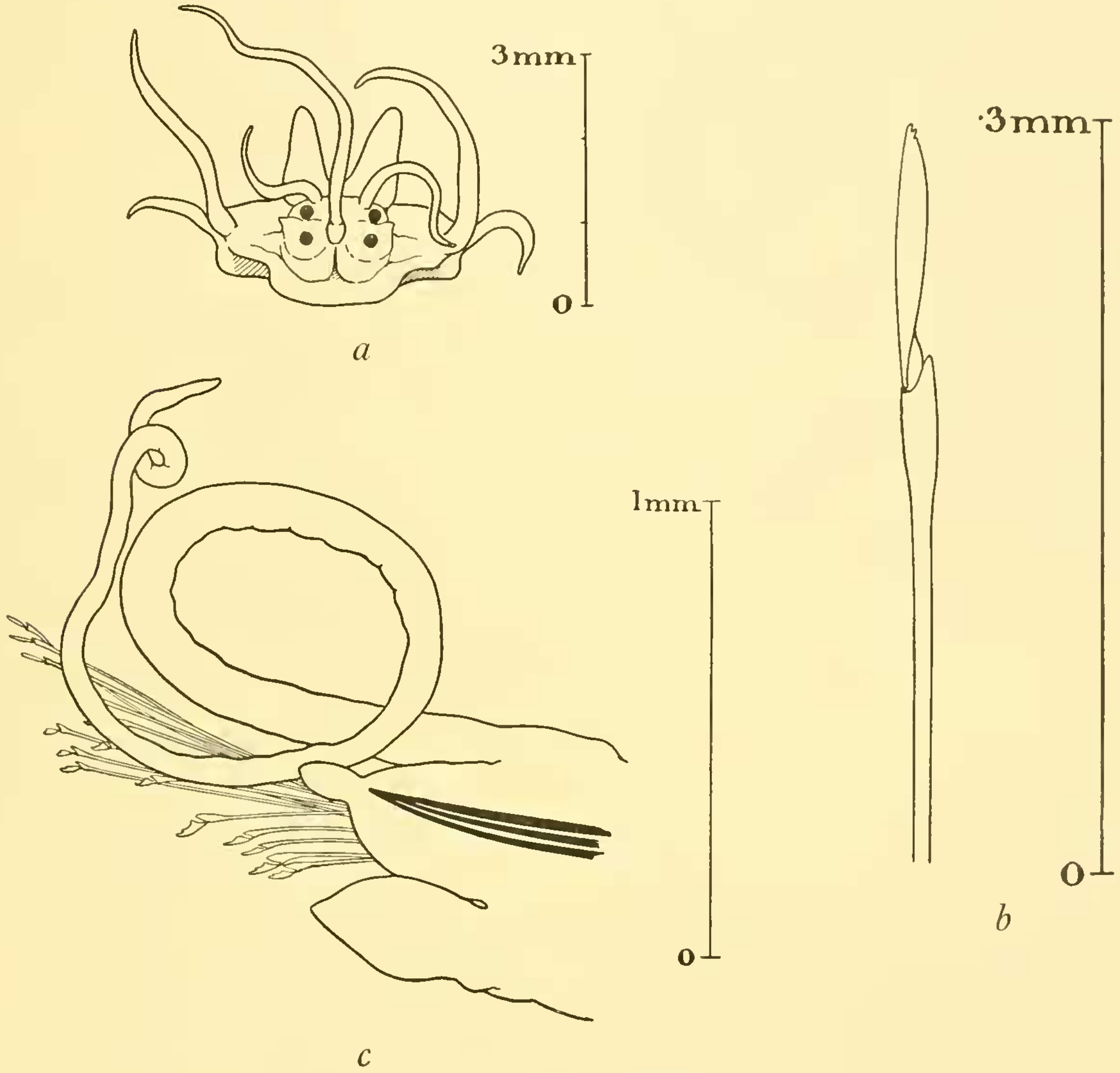

Fig. 30. *Eusyllis kerguelensis*.
a. Head. *b*. Upper bristle. *c*. Foot.

Genus **Trypanosyllis**, Claparède

Trypanosyllis gigantea (McIntosh).

Syllis gigantea, McIntosh, 1885, p. 193, pl. xxx, figs. 1–3; pl. xxxiii, fig. 4; pl. x A, fig. 14; pl. xxiv A, fig. 7.

Trypanosyllis gigantea, Ehlers, 1901, p. 85, pl. vi, figs. 11–16.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One specimen.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Two specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. One specimen.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. One specimen.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. "Found inside a colony of *Cephalodiscus nigrescens*, living in the tubules of the polypides." One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Two specimens.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 83. 24. iii. 27. 14 miles S 64° W of George Island, East Falkland Island. From 52° 28′ 00″ S, 60° 06′ 00″ W to 52° 30′ 00″ S, 60° 09′ 30″ W. 137–129 m. Gear **OTC**. Bottom: fine green sand and shell. Two specimens.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Two specimens.

St. WS 86. 3. iv. 27. 53° 53′ 30″ S, 60° 34′ 30″ W. From 53° 53′ 00″ S, 60° 37′ 00″ W to 53° 54′ 00″ S, 60° 32′ 00″ W. 151–147 m. Gear **OTC**. Bottom: sand, shell and stones. Three specimens.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. One specimen.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. Three specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Two specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. Four specimens.

St. MS ?. 13. iv. 25. East Cumberland Bay, South Georgia. One specimen.

REMARKS. This species has been extensively studied by a number of authors, and I have nothing to add to the numerous accounts of it already given.

Trypanosyllis gemmulifera, Augener.

Augener, 1918, p. 278, pl. v, figs. 99–101, text-fig. 27.

St. 1. 16. xi. 25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′00″ W. 16–27 m. Gear **NRM**. Bottom: coralline sand and shell. One specimen.

REMARKS. The single example of this species from Ascension Island corresponds in detail to Augener's description. The long cirri, the bidentate chaetal blades, and the brown double banding on the back are distinctive. I can find no trace of buds.

Genus **Autolytus**, Grube

Autolytus charcoti, Gravier.

Gravier, 1907, p. 7, pl. i, figs. 1–2.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. "Found inside a colony of *Cephalodiscus nigrescens*, living in the tubules of the polypides." One specimen.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½ W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. One specimen.

REMARKS. This species is characterised by the very distinct nuchal organs and the long slender tentacular and dorsal cirri.

In the specimen from St. 190, the pedal lobe is more thickened on top above the bristles than as shown by Gravier, but less than in McIntosh's *A. maclearanus*.

Autolytus gibber, Ehlers.

Ehlers, 1897, p. 55, pl. iii, figs. 71 and 72.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Three specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island, 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. One specimen.

REMARKS. The examples of this species are all in rather poor condition. *A. gibber* is a more massive species than *A. charcoti*, the tentacles and tentacular cirri are thicker and shorter and the nuchal organs very much less distinct. I cannot distinguish with certainty the flap or gibbosity behind the head described by Ehlers. In the example from St. 170, the transverse lines of pigment dots are faintly visible across the back, but not on the cirri.

Autolytus simplex, Ehlers.

Ehlers, 1901, p. 97, pl. x, figs. 5–8.
Pratt, 1901, p. 2.
Fauvel, 1916, p. 430.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Twelve specimens.

St. 57. 16. v. 26. Port William, East Falkland Island. $5\frac{1}{2}$ cables S 20° W of Sparrow Point. 15 m. Gear BTS. Four specimens.

St. 63. 22. v. 26. 48° 50′ 00″ S, 53° 56′ 00″ W. 0 m. Gear NH. "From floating *Macrocystis*." Four specimens.

REMARKS. The four specimens from St. 63 measure 10–14 mm. by 1 mm. including the feet and are in the "Chain" phase.

The head and its appendages are well figured by Ehlers, the 1st dorsal cirrus being longer than the tentacular cirri. The dorsal cirri are very short and rather thick and the second tooth of the chaetal blades is longer than the first. The pharynx runs straight from the 1st to 3rd chaetigers: in the 3rd it loops backwards alongside the proventriculus into the 4th chaetiger: the proventriculus extends from the 3rd to the 6th chaetigers. At the 14th chaetiger the stolon begins and is marked by a head in different stages of development in the various examples. In the most highly developed there are two pairs of brown eyes, a pair of forked palps, a median and two lateral tentacles. Behind the head in the largest stolon there are about 45 chaetigers. The stolon seems to show no differences from the stock except that the constrictions between the segments are more marked. In the less developed specimens the head of the stolon appears as a white pad of tissue across the 14th chaetiger. There are no traces either of swimming bristles or of *Ehlersia* bristles. There is never more than one individual behind the stock.

Autolytus (Sacconereis) sp.

St. 135. 21. xii. 26. 54° 22′ 00″ S, 35° 39′ 00″ W. 64 m. Gear N 70 H. One specimen.

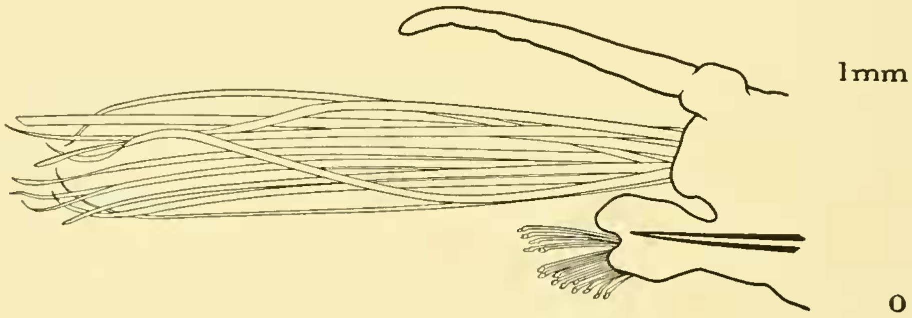

Fig. 31. *Autolytus*, sp. Middle foot.

DESCRIPTION. A single example tightly curled round a cluster of eggs. The eggs are very numerous and small, and the brood pouch is not visible, but the firm line of the outer edge of the egg-cluster has the appearance of having been made by some external container. All that can be seen, however, is the large mass of eggs adhering together and apparently held in place by the twisting of the mother's body around them. I cannot make a thorough examination without uncoiling the specimen and so dislodging the eggs, so I have to leave a number of characters unexamined. The colour is a pale brown and all the markings are faded from the body. The tentacles and cirri are indistinctly moniliform.

The prostomium is broader than long, rectangular and with two pairs of large black eyes. The median tentacle is very long, about five times as long as the prostomium, and arises at the back of the head. The lateral tentacles are about half the length of the median and arise at the sides of the prostomium between the front and hinder pairs of eyes. There are two pairs of tentacular cirri which come off below the head. The dorsal are about the length of the lateral tentacles and twice as long as the ventral. The segment to which they are attached is incomplete dorsally. The first dorsal cirrus is very long, of about the length of the median tentacle, and the following dorsal cirri are about half its length, and the first three or four feet are very small and crowded together. There are no ventral cirri. About the first ten chaetigers and the last forty are without the long swimming bristles: owing to the coiling of the specimen I cannot make an exact count.

There is a long dorsal cirrus below which in all the middle chaetigers (Fig. 31) is a tuft of long transparent swimming chaetae: below these again is the lobe of the foot, oval in outline and with a notch or incision at its apex just below the ends of the acicula. The compound bristles are numerous, with a short bidentate blade showing a typical *Autolytus* structure. For the reasons already given I cannot examine the pharynx or make a measurement of the body length.

REMARKS. I have assumed that the broad pouch in this specimen has burst and disintegrated, for the absence of palps and of ventral cirri, the structure of the chaetal blades and the shape of the dorsal cirri all go to show that this example is a *Sacconereis*. It may be the female sexual form of *Autolytus maclearanus* of which Ehlers (1913, p. 492, Pl. xxxiv, fig. 3) gives a very brief account and a rather sketchy figure.

Genus **Grubea**, Quatrefages

Grubea clavata (Claparède).

Augener, 1918, p. 295.
Fauvel, 1923, p. 296, fig. 114 *a–e*.
? *Grubea rhopalophora*, Ehlers.
Ehlers, 1897, p. 53, pl. iii, figs. 66–70.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear BTS. Bottom: mud and sand. Four specimens.

REMARKS. With some hesitation I refer these minute worms to Claparède's North Atlantic species rather than to the Antarctic *G. rhopalophora*, because the upper of the tentacular cirri is decidedly longer than the lower. The dorsal cirri are of the gradually tapering fusiform kind, and there is a marked constriction in the pharynx a short distance above the proventriculus. The second tooth on the bristles is exceedingly small and can only be seen at a very high magnification. As Ehlers has noted, there is a considerable variation in the shape of the dorsal cirri in *G. rhopalophora*. If this extends to the relative lengths of the dorsal and ventral tentacular cirri, the distinction between *G. rhopalophora* and *G. clavata* ceases to exist.

Genus **Syllis**, Savigny

Syllis prolixa, Ehlers.

Ehlers, 1901, p. 92, pl. ix, figs. 1–7.
Syllis longifilis, Ehlers, 1901, p. 95, pl. x, fig. 3.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. One specimen.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. One specimen.

REMARKS. I have assigned these two specimens to *S. prolixa*, because of their long multi-articulate dorsal cirri and the absence of a second tooth to the chaetal blades. About the latter character it is very difficult to be certain with the material at my disposal, but I am unable definitely to find a subapical tooth. In the example from St. 58, traces of a transverse brown banding can be discerned. The bristles (Fig. 32) closely resemble that figured by Ehlers for *S. longifilis*. *S. prolixa* and *S. longifilis* seem to be growth stages of the same species, and the former has priority.

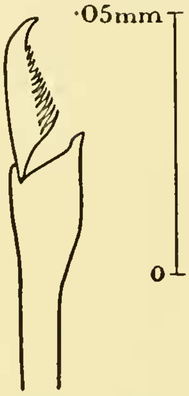

Fig. 32. *Syllis prolixa*. Bristle.

Syllis brachychaeta, Schmarda.

Augener, 1918, p. 247, pl. iv, figs. 83–85; pl. v, fig. 98, text-fig. 20; and 1924 A, p. 358.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. "From débris of stones with incrustations." Four specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. "Found inside a colony of *Cephalodiscus nigrescens*, living in the tubules of the polypides." Eight specimens.

Saldanha Bay beach, Cape of Good Hope. One specimen.

REMARKS. Augener has studied this species at great length, and has come to the conclusion that *Syllis closterobranchia*, Schmarda, and *S. hyalina*, Grube, are synonyms of *S. brachychaeta*. I have not sufficient material to form an opinion of my own on this matter, so I accept Augener's conclusions.

This species is easily recognisable by its short pauci-articulate spindle-shaped dorsal cirri.

Syllis brachycola, Ehlers.

Ehlers, 1897, p. 38, pl. ii, figs. 46 and 47.
Augener, 1924, p. 362.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **NCS–T**. Bottom: fine sand. One specimen. Also at 115 m. Gear **DLH**. Two specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64 50′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. "Found inside colony of *Cephalodiscus nigrescens*, living in the tubules of the polypides." One specimen.

St. WS 128. 10. vi. 27. West side of Gough Island, inshore. 40° 19′ 00″ S, 10° 04′ 00″ W. 120–90 m. Gear **DLH**. Six specimens.

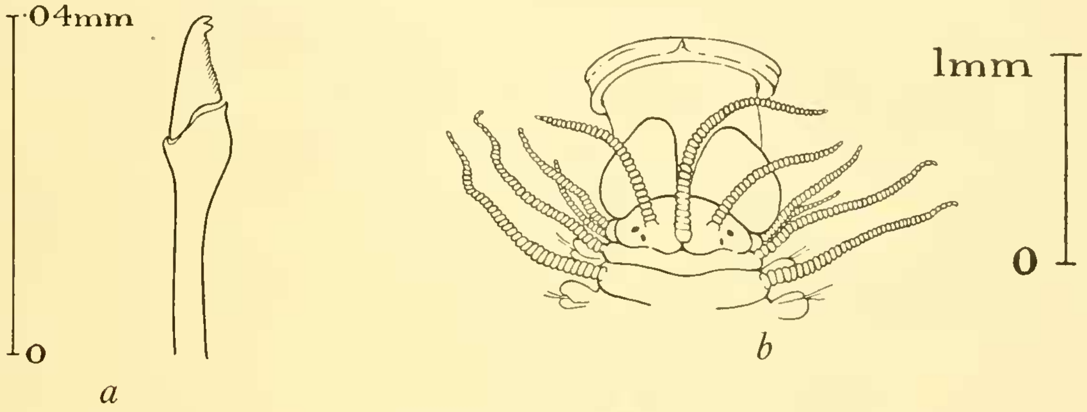

Fig. 33. *Syllis brachycola.*

a. Bristle. *b.* Head with pharynx everted (the papillae are omitted from the proboscis sheath).

Remarks. I have much hesitation in assigning these specimens to Ehlers' species because the head of the chaetal shafts is more expanded, and the blades (Fig. 33, *a*) much shorter and stouter than those figured by Ehlers (*loc. cit.*) and by Gravier (1907, p. 20, text-fig. 14). I find two kinds of southern *Syllis* with long multi-articulate dorsal cirri and bidentate chaetal blades in this collection. One in which the bristles are few (seven to eight), and the chaetal blades are short and broad with a very distinct second tooth; the other has more numerous bristles and longer and more slender chaetal blades with a slight second tooth. In both, the pharynx is rather long, reaching to the 13th–15th chaetigers and the proventriculus to the 20th–21st, and the tooth is terminal.

The forms with the broad chaetal blades I have doubtfully assigned to *S. brachycola*, and those with slender chaetal blades to *S. variegata*. In two or three of the examples of *S. brachycola* the front part of the body is coloured brown, the pigment extending to the dorsal cirri. One of the longer dorsal cirri from the middle of the body has about 45–50 articulations. I figure a head with the pharynx everted (Fig. 33, *b*).

Except in the shape of the chaetal blades, these specimens agree with Ehlers' description.

Syllis variegata, Grube.

Augener, 1918, p. 234.
Fauvel, 1923, p. 262, fig. 97 *h–n*.

St. 2. 17. xi. 25. Clarence Bay, Ascension Island, Catherine's Point and Collyer Point. Shore collection. From buoy. Four specimens.

St. 52. 5. v. 26. Port William, East Falkland Island. 7·4 cables N 17° E of Navy Point. 17 m. Gear **LH**. Seven specimens.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear BTS. Three specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear RM. Two specimens.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 77 m. Gear DLH. One specimen.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear OTC. Bottom: sand, shell and stones. One specimen.

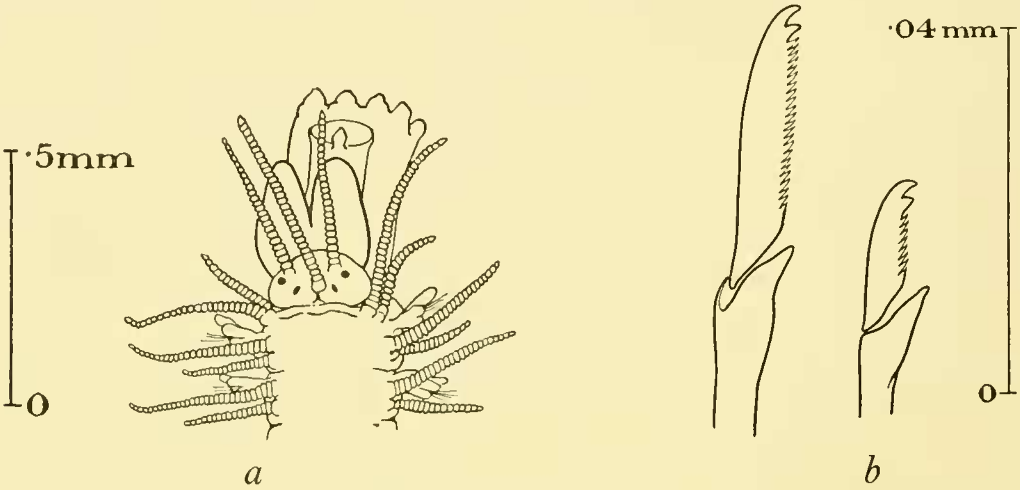

Fig. 34. *Syllis variegata.*
a. Head. *b.* Bristles.

Remarks. I have compared these examples with a specimen of this species from European waters and I can discover no ground for separation. I figure a head (Fig. 34, *a*) and two bristles (Fig. 34, *b*).

Syllis sclerolaema, Ehlers.

Ehlers, 1901, p. 86, pl. x, figs. 1–2.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear OTL. Bottom: fine sand. Two specimens.

Remarks. Two rather damaged fragments which I believe to belong to this species. The body is rather massive and dorsally arched. The prostomium is very small and the palps are very broad at the base. I can see two pairs only of minute eyes, the anterior larger than the hinder. The chaetal lobe has two unequal lips. The bristles (Fig. 35) are broad at the head of the shaft and the articulation between blade and shaft can only be seen after careful examination. The blade has the appearance of an uninterrupted continuation of the shaft (pseudoypsiloid) as shown in Ehlers' figure and it ends in a bidentate hook. The ventral cirrus is large and triangular in outline.

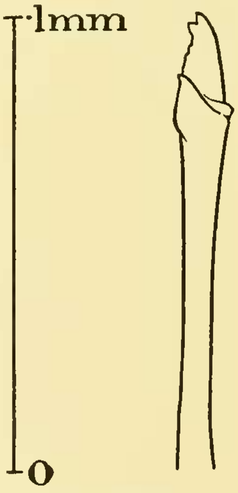

Fig. 35. *Syllis sclerolaema.* Bristle.

Family NEREIDAE

Genus **Nereis**, Cuvier

Nereis kerguelensis, McIntosh.

McIntosh, 1885, p. 225, pl. 35, figs. 10–12; pl. xvi A, figs. 17 and 18.
Ehlers, 1897, p. 65, pl. iv, figs. 81–93.
Fauvel, 1923, p. 342, fig. 133 *g–m*.
Nereis larseni, Monro, 1926, p. 320, text-figs. 9–11. For the rest of the synonymy see Fauvel, 1917, p. 433.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Seven specimens.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. "Off kelp root." Bottom: fine sand. One specimen.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Six specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Four specimens.

St. 163. 17. ii. 27. Paul Harbour, Signy Island, South Orkneys. 18–27 m. Gear **BTS**. One specimen.

St. 164. 18. ii. 27. East end of Normanna Strait, South Orkneys, near Cape Hansen, Coronation Island. 24–36 m. Gear **BTS**. Four specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Two specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. Two specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Three specimens.

St. WS 56. 14. i. 27. Larsen Harbour, Drygalski Fiord, South Georgia. 2 m. Gear **NH**. From kelp root. Seven specimens.

St. WS 65. 22. i. 27. Undine Harbour (North), South Georgia. Shore collection: from kelp root. Ten specimens.

St. WS 71. 23. ii. 27. 6 miles N 60° E of Cape Pembroke Light, East Falkland Island. 51° 38′ 00″ S, 57° 32′ 30″ W. 82–80 m. Gear **OTC**. Bottom: sand. One specimen.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75 m. Gear **OTC**. Bottom: coarse sand, shell and stones. One specimen.

St. WS 86. 3. iv. 27. 53° 53′ 30″ S, 60° 34′ 30″ W. From 53° 53′ 00″ S, 60° 37′ 00″ W to 53° 54′ 00″ S, 60° 32′ 00″ W. 151–147 m. Gear **OTC**. Bottom: sand, shell and stones. "Found in association with an Alcyonarian." One specimen.

St. MS 6. 12. ii. 25. East Cumberland Bay, South Georgia. ¼ mile S of Hope Point to 1¼ cables S × E of King Edward Point Light. 24–30 m. Gear **BTS**. Four specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Two specimens.

REMARKS. I can confirm Ramsay's (1914, p. 42) observation that the southern examples of this species have no heterogomph spinigers. I have examined the type of *Nereis patagonica*, McIntosh (1865, p. 228): the proboscis is withdrawn and previous dissection has made it impossible to study the arrangement of the paragnaths with any accuracy, but its general facies and its feet are those of a typical *N. kerguelensis*.

Nereis callaona, Grube.

Augener, 1918, p. 184, with synonymy.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. One specimen.

REMARKS. The specimen from St. 90 is a small anterior fragment of 25 chaetigers, and measures 11 mm. by 2 mm. including the feet. It is doubtfully of this species. The proboscis is withdrawn, but as far as I can see, the arrangement of the paragnaths corresponds to that in Kinberg's figures of the proboscis (as *N. angusta*), with the exception that there is clearly a single paragnath in Group V.

The feet are indistinguishable from those described for this species.

Nereis eugeniae (Kinberg).

Char. emend. Ehlers, 1897, p. 67, pl. iv, figs. 94–105.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. "Off kelp root." Bottom: fine sand. Sixteen specimens.

St. 52. 5. v. 26. Port William, East Falkland Island. 7·4 cables N 17° E of Navy Point. 17 m. Gear **LH**. One specimen.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. One specimen.

St. WS 71. 23. ii. 27. 6 miles N 60° E of Cape Pembroke Light, East Falkland Island. 51° 38′ 00″ S, 57° 32′ 30″ W. 80–82 m. Gear **OTC**. Bottom: sand. One specimen.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. Four specimens.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. Four specimens.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Bottom: sand. One specimen.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75 m. Gear **OTC**. Bottom: coarse sand, shell and stones. One specimen.

REMARKS. This species appears to be common off the Falkland Islands. It was first recorded from there by Ramsay (1914, p. 43). It is considerably larger and slightly darker in colour (in spirit) than the other two common southern nereids *N. kerguelensis* and *N. magalhaensis*. It seems not to penetrate further south than the Falkland Islands.

Ehlers figures the paragnaths of Groups VII and VIII as vaguely distichous. They form a single very sparse rather irregular row and in a number of the larger examples they appear to be altogether absent.

Nereis typhla, n.sp.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

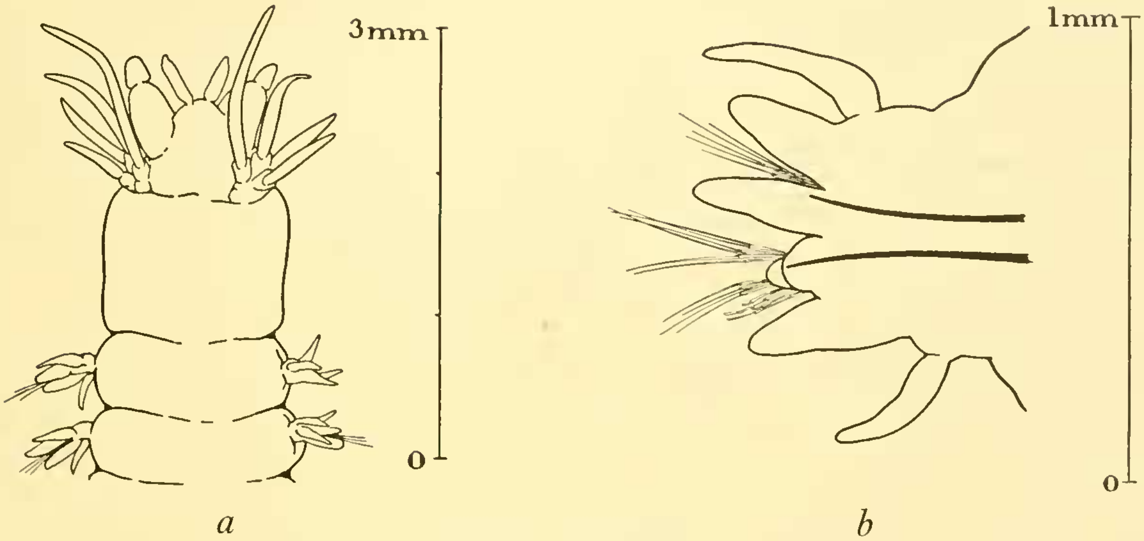

Fig. 36. *Nereis typhla*.
a. Head. *b*. Foot.

Description. A single fragment measuring 26 mm. by 3 mm. including the feet and with 58 chaetigers. The colour in spirit is a pale brown with a dark stripe down the middle of the back, broader and more indistinct in front, narrower and more clearly defined in the rest of the body. The prostomium (Fig. 36, *a*) is longer than broad and the tentacles are about half its length. There are no eyes or ocular pigment of any kind, even beneath the skin. The palps end in a conical terminal article. The tentacular cirri are short, the longest reaching to the posterior border of the first chaetiger. The buccal is twice the length of the following segment. The proboscis is withdrawn and the exact arrangement of the paragnaths is difficult to discern. Of the oral ring Group VI alone is represented by a small collocation of about five minute paragnaths. Of the maxillary ring Group II is represented by a mass of about eight rather larger paragnaths, and IV by an oblique distichous row of paragnaths of about the same size as those in Group II. I am uncertain whether Group III is present. The jaws are of the usual form with three teeth below the main fang.

The feet (Fig. 36, *b*) are very like those of *N. eugeniae*. The notopodium has two pointed languets of about equal length, from between which the dorsal bristles emerge. The lips of the neuropodial chaeta sac are unequal but with only a slight difference in size: the ventral languet is of the same shape as the dorsal but a little smaller. The dorsal cirrus is very slightly longer than the upper dorsal languet, and the ventral cirrus is small, set far back and reaches about half-way down the ventral languet. The dorsal bristle bundle contains homogomph spinigers, the upper ventral bundle homogomph spinigers and heterogomph falcigers, the lower ventral bundle heterogomph spinigers and heterogomph falcigers.

REMARKS. I had much hesitation in basing a new species on a single example, but the complete absence of eyes together with the arrangement of the paragnaths is distinctive. This species is closely related to *N. eugeniae*: as I have already remarked about that species, there is a tendency for the paragnaths of Groups VII and VIII to disappear. When these are absent, the arrangement is similar to that in *N. typhla*. Moreover, the eyes in *N. eugeniae* are not so distinct as in most species of *Nereis*, and I can confirm Ehlers' observation: "Die Augen auf den Seitentheilen der hinteren Hälfte des Kopflappens schimmern in der atoken Form oft wenig deutlich durch die Haut durch." I regard *N. typhla* as a *N. eugeniae* that has lost its eyes and the paragnaths of Groups VII and VIII.

Nereis pelagica, L.

Fauvel, 1923, p. 336, fig. 130 *a–f*.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. Three young specimens.

Platynereis magalhaensis, Kinberg.

Fauvel, 1917, pl. viii, figs. 21 and 22, with synonymy.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. "Off kelp root." Bottom: fine sand. Three specimens.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Twenty specimens.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear **BTS**. Two specimens.

St. 56. 16. v. 26. Sparrow Cove, Port William, East Falkland Island. 1½ cables N 50° E of Sparrow Point. 10½–16 m. Gear **BTS**. "From carapace of *Paralomis*." Four specimens. Also two further specimens not so labelled.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Two specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. One specimen.

St. 222. 23. iv. 27. St Martin's Cove, Hermite Island, Cape Horn. 30–35 m. Gear **NRL**. Three specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Two specimens.

St. WS 65. 22. i. 27. Undine Harbour (North), South Georgia. Shore collection: "from kelp root." One specimen.

St. WS 75. 10. iii. 27. 51° 01′ 30″ S, 60° 31′ 00″ W. From 51° 00′ 00″ S, 60° 30′ 00″ W to 51° 02′ 42″ S, 60° 31′ 42″ W. 64–104 m. Gear **OTC**. One specimen.

REMARKS. I share Fauvel's doubt as to whether this species is separable from *P. dumerilii*. I propose, however, for the present to keep Kinberg's name. The two specimens attributed by me (1926, p. 322) to *P. dumerilii* from the Straits of Magellan and South Georgia should therefore be assigned to *P. magalhaensis*.

Of the specimens from Hermite Island, Cape Horn, the largest measures 105 mm. by 7 mm. including the feet, and one is an epitocous female. The various lamellae of the feet (Fig. 37) are not so fully developed as those figured by Ehlers (1897, pl. v, fig. 106) and presumably the metamorphosis is not complete. It is, however, noteworthy that the change to the epitocous condition of the feet begins on the 22nd chaetiger. According to Ehlers in *P. dumerilii* the change begins from the 21st foot and in *P. magalhaensis* from the 26th. The present specimen occurs within the *P. magalhaensis* area, but corresponds to *P. dumerilii* in the disposition of the heteronereid feet. This seems an additional reason for regarding the separation of the two species with suspicion.

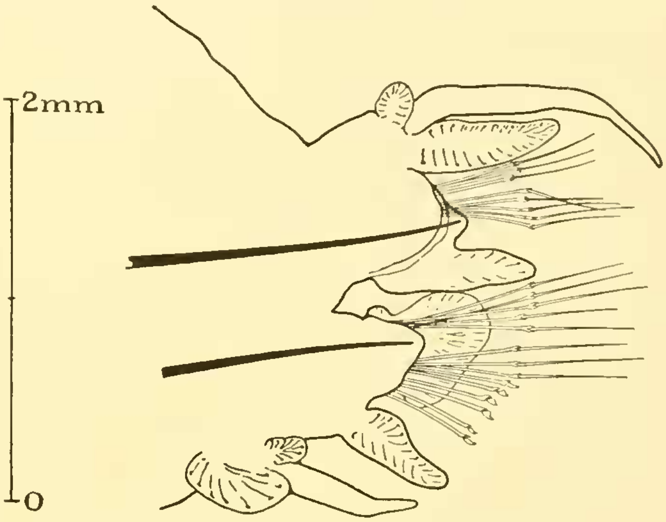

Fig. 37. *Platynereis magalhaensis*. Thirty-fifth foot of epitocous ♀.

St. 56 yielded four young specimens measuring about 7 mm. long, labelled "from carapace of *Paralomis*."

I have examined two specimens labelled by Benham *N. australis*, Schmarda, from the Campbell Islands, but they throw little light on the question whether this species should be identified with *P. magalhaensis*, as Benham and Ramsay claim. The specimens are more massive than any examples of *P. magalhaensis* that I have examined. Moreover, the buccal segment is very short, but this may be the result of improper fixation: the pedal languets are rather thinner and more pointed than is usual in *P. magalhaensis*, but in other respects they appear to be indistinguishable. This is a question that the examination of a large series of specimens alone can decide.

Platynereis dumerilii (Audouin and Milne-Edwards).

Fauvel, 1923, p. 259, fig. 141 *a–f*, with synonymy.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Fourteen specimens.

St. MS 82. 6. ix. 26. Off Salamander Point, Saldanha Bay, South Africa. 7–14 m. Gear **BTS**. Eight specimens.

Leptonereis loxechini (Kinberg).

Nicon loxechini, Kinberg, 1865, p. 178.
Nereis loxechini, Ehlers, 1908, p. 73, pl. vii, figs. 8–12; and 1913, p. 497.

St. 6. 1. ii. 26. Tristan da Cunha. 3 miles N 30° E of Settlement. 80–140 m. Gear **DL**. Bottom: rock. Eight specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Seven specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Twenty-eight specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Seven specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **OTL**. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 50′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. One specimen.

St. WS 83. 24. iii. 27. 14 miles S 64° W of George Island, East Falkland Island. From 52° 28′ 00″ S, 60° 06′ 00″ W to 52° 30′ 00″ S, 60° 09′ 30″ W. 137–129 m. Gear **OTC**. Bottom: fine green sand and shell. Six specimens.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. Two specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. Seventeen specimens.

St. WS 99. 19. iv. 27. 49° 42′ 00″ S, 59° 14′ 30″ W. From 49° 41′ 00″ S, 59° 14′ 00″ W to 49° 43′ 00″ S, 59° 15′ 00″ W. 251–225 m. Gear **OTC**. Bottom: fine dark sand. Fifteen specimens.

DESCRIPTION. The largest specimen measures 175 mm. by 8 mm. including the feet. In spirit there are no colour markings. The prostomium is as broad as long with two pairs of large eyes. The tentacles are about half the length of the prostomium, and the palps are very broad and massive with small conical styles. The longest tentacular cirrus reaches back to the 5th–12th chaetiger. There are no paragnaths.

The first two feet are uniramous. A normal anterior foot has two large notopodial languets, the lower slightly shorter and less pointed than the upper, and between them in contact with the dorsal bristle bundle is a third and very much smaller languet. The neuropodial chaeta sac has two unequal lips, the anterior rounded and the posterior longer and conical. The ventral languet is broader and blunter than those of the notopodium. The dorsal cirrus extends for about half its

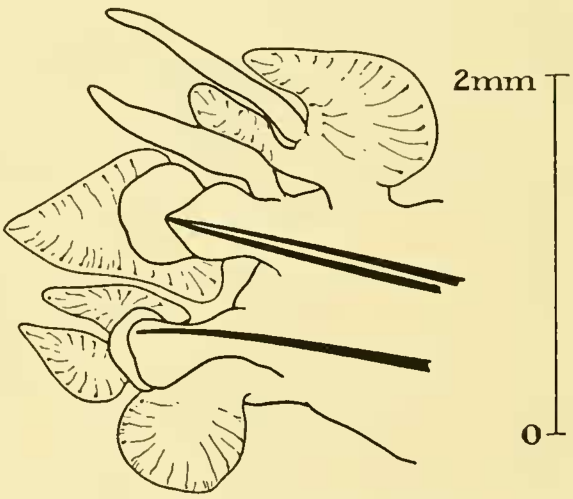

Fig. 38. *Leptonereis loxechini*. Foot of epitocous male. The bristles are omitted.

length beyond the end of the upper dorsal languet, and the ventral cirrus is the same length as the ventral languet. The posterior feet differ from the anterior only in the more slender and pointed character of the languets.

The dorsal bristle bundle contains homogomph spinigers, the upper ventral bundle homogomph spinigers and heterogomph falcigers and the lower ventral bundle heterogomph spinigers and falcigers.

The body ends in a pair of long pygidial styles.

Remarks. This species differs from *Leptonereis laevis*, Kinberg, from Guajaquil in the shape of the head, the greater size of the eyes and also, as far as I can judge, from his figure, in the shape of the feet. This species is recorded by Ehlers from Kaiser Wilhelm II Land.

The examples from off Tristan da Cunha are doubtfully of this species. They are small and possibly young specimens, measuring about 15 mm. by 2 mm. including the feet. The eyes are relatively rather larger than in the typical forms and the anterior pair is crescentic: the tentacles are also relatively much larger, being about as long as the prostomium. The tentacular cirri reach back to the 15th chaetiger. The languets of the feet are relatively longer and narrower: the intermediate dorsal languet is reduced to a very small process: the anterior face of the ventral chaeta sac ends in a kind of rounded lobe and the posterior lip is carried out into a long digitiform process as long as the languets. The interior of the pharynx is coloured dark red and I can find no trace of paragnaths. I cannot clearly separate these examples from *L. loxechini*, of which they may be young forms.

A number of the specimens from St. 170 had built tubes along the stems of a Hydroid (*Sertularia* sp.).

At St. 123, off South Georgia, was found an epitocous male: the head and first seven chaetigers are modified in the usual manner, the 8th to the 20th feet are of the atokous form, and from the 21st onwards they assume the true heteronereid shape, as shown by the figure (Fig. 38).

Nereis (Eunereis) hardyi, n.sp.

St. WS 86. 3. iv. 27. 53° 53′ 30″ S, 60° 34′ 30″ W. From 53° 53′ 00″ S, 60° 37′ 00″ W to 53° 54′ 00″ S, 60° 32′ 00″ W. 151–147 m. Gear **OTC**. Bottom: sand, shell and stones. Eight specimens.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. Eight specimens.

St. WS 90. 7. iv. 27. 13 miles N 83° E of Cape Virgins Light, Argentine Republic. From 52° 18′ 00″ S, 68° 00′ 00″ W to 52° 19′ 30″ S, 67° 57′ 00″ W. 82–81 m. Gear **OTC**. Bottom: fine dark sand. Seven specimens.

St. WS 93. 9. iv. 27. 7 miles S 80° W of Beaver Island, West Falkland Island. From 51° 51′ 00″ S, 61° 30′ 00″ W to 51° 54′ 00″ S, 61° 30′ 00″ W. 133–130 m. Gear **OTC**. Bottom: grey sand. Three specimens.

Description. Nearly all the adult specimens are incomplete. The largest measures 70 mm. by 3 mm. without the feet and has about 65 chaetigers. There is a young, complete specimen measuring 38 mm. by 1 mm. without the feet and with 70 chaetigers.

There are brown markings on the head (Fig. 39, *a*) and back and the pedal glands are brown. The length and breadth of the prostomium are about equal: there are two pairs of eyes of equal size. The tentacles are about half the length of the prostomium: the palps are rather long with conical styles. The longest tentacular cirrus reaches to the 5th–6th chaetiger.

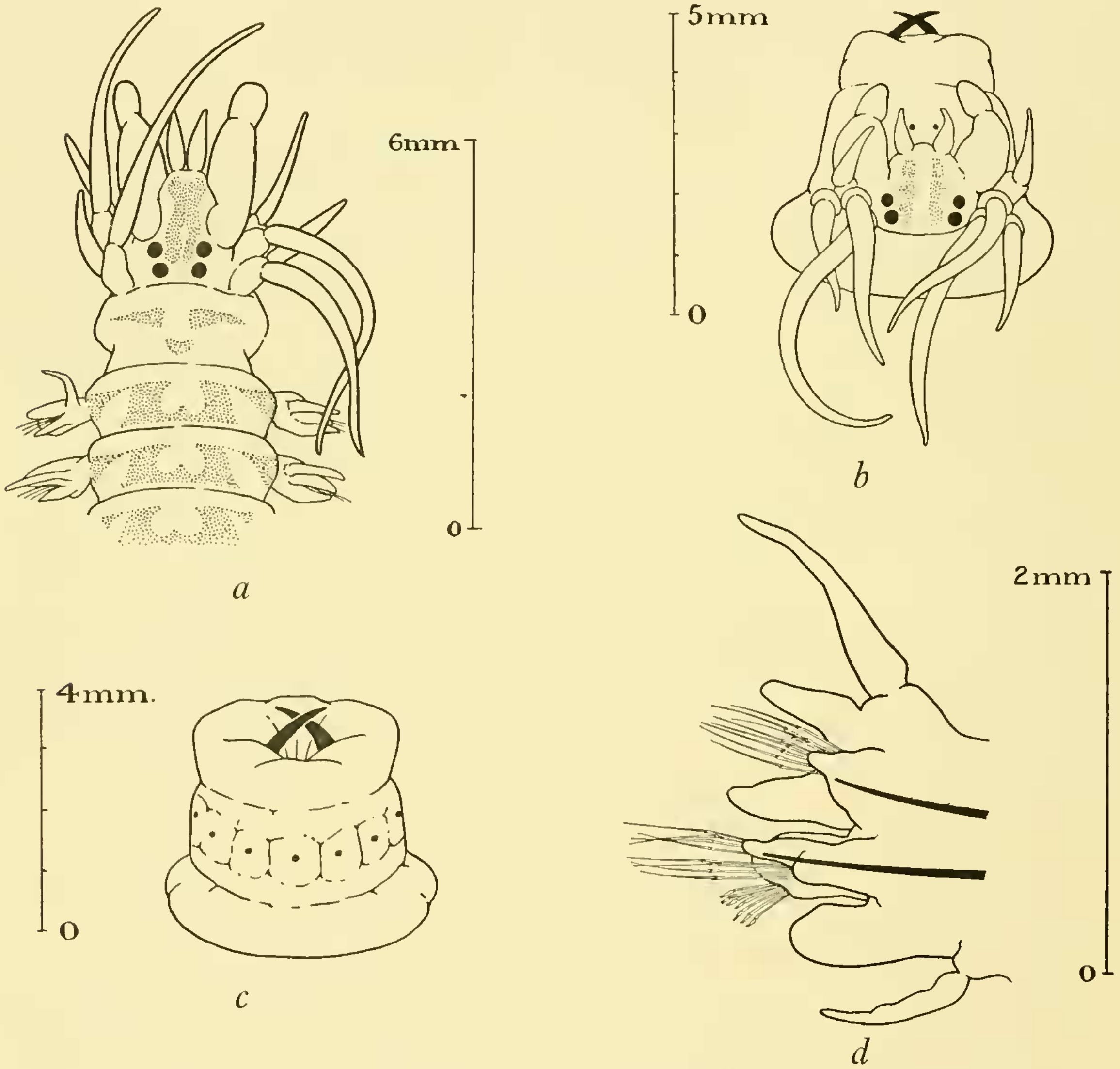

Fig. 39. *Nereis* (*Eunereis*) *hardyi*.

a. Head and anterior segments. *b*. Head and proboscis from above. *c*. Proboscis-ventral aspect. *d*. Foot.

There are no paragnaths on the maxillary ring: on the upper side of the oral ring (Fig. 39, *b*) are two paragnaths side by side both in Group V. Groups VII and VIII (Fig. 39, *c*) are occupied by a single row of seven to eight rather large widely spaced paragnaths. The jaw plates have five very small teeth below the main fang.

The feet (Fig. 39, *d*) are very like those of *N. kerguelensis* and *Leptonereis loxechini*. The notopodium has two conical dorsal languets of about the same size, between which is a third very small languet in contact with the bristles. This third languet disappears in the posterior feet. The neuropodial chaeta sac has two unequal lips, the anterior rounded and the posterior longer and conical. The ventral languet is broader and blunter than those of the dorsal branch. The dorsal cirrus extends for about half its length beyond the end of the upper dorsal languet and the ventral cirrus is the same length as the ventral languet. The dorsal bristle bundle contains homogomph spinigers, the upper ventral bundle homogomph spinigers and heterogomph falcigers and the lower ventral bundle a single heterogomph spiniger and heterogomph falcigers.

There is a pair of long pygidial styles at the end of the body.

REMARKS. In its general appearance and in the shape of its feet this species is close to *N. kerguelensis*. The intermediate dorsal languet is not so fully developed; there are no paragnaths in the maxillary ring and there is a single heterogomph spiniger in the lower ventral bristle bundle. I have not been able to find any heterogomph spinigers in *N. kerguelensis*.

I have named this species after Prof. A. C. Hardy, the resourceful second in command of the expedition.

Ceratonereis vittata, Langerhans.

Langerhans, 1884, p. 254, pl. 15, fig. 12 *a–e*.
Fauvel, 1916, p. 86, pl. vi, figs. 9–11; pl. ix, figs. 16–20.
Ceratonereis rolasiensis, Augener, 1918, pl. iii, fig. 64–65; pl. iv, fig. 78, text-fig. 16.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

REMARKS. The specimen from St. 283 corresponds in detail to Langerhans' description and figures. The very sparse paragnaths are distinctive. The colour markings are similar to those figured by Augener for his *C. rolasiensis*, which does not seem to be separable from this species. The specimen is atocous, and I have not sufficient material to add anything to the already published accounts of this species.

Family NEPHTHYDIDAE

Genus **Nephthys**, Cuvier

Nephthys macrura, Schmarda.

Fauvel, 1916, p. 436, pl. viii, figs. 1–3, with synonymy.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Three specimens.

St. 28. 16. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 45° W of Jason Light. 168 m. Gear **DC**. Bottom: mud. One specimen.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. Nine specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens. Gear **NCS–T**. Three specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Six specimens.

St. 143. 30. xii. 26. Off mouth of East Cumberland Bay, South Georgia. 54° 12′ S, 36° 29′ 30″ W. 273 m. Gear **OTL**. Bottom: mud. Two specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. Two specimens.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. Three specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. Two specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N $76\frac{1}{2}$° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Six specimens.

St. 157. 20. i. 27. 53° 51′ 00″ S, 36° 11′ 15″ W. 970 m. Gear **DLH**. Bottom: diatomic ooze, stones and fine sand. Seven specimens.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. Three specimens.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

St. 173. 28. ii. 27. Port Foster, Deception Island, South Shetlands. Close to SE shore, near Lake Point. 5–60 m. Gear **BTS**. Four specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Three specimens.

St. 180. 11. iii. 27. 1·7 miles W of N Point of Gand Island, Schollaert Channel, Palmer Archipelago. 160 m. Gear **DLH**. Bottom: mud and stones. Three specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Fifty-two specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. Fifteen specimens.

St. 186. 16. iii. 27. Fournier Bay, Anvers Island, Palmer Archipelago. 64° 25′ 30″ S, 63° 02′ 00″ W. 295 m. Gear **DLH**. Bottom: mud. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: mud and rock. Two specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. Three specimens. Gear **DLH**. Two specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Two specimens.

St. WS 32. 21. xii. 26. Mouth of Drygalski Fiord, South Georgia. 225 m. Gear **BTS**. Bottom: grey mud. Seven specimens.

St. WS 33. 21. xii. 26. 54° 59′ 00″ S, 35° 24′ 00″ W. 130 m. Gear **N 100 H**. Bottom: grey mud and stones. Two specimens.

St. MS 15. 17. ii. 25. East Cumberland Bay, South Georgia. 3 miles SW of Merton Rock to $2\frac{1}{4}$ miles NNW of Dartmouth Point. 110 m. Gear DS. One specimen.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S $\frac{1}{2}$ E to $8\frac{1}{2}$ cables SE × E of Sappho Point. 220–247 m. Gear NCS–N and NRL. Fifteen specimens.

REMARKS. There is very wide variation in the shape of the feet in this species on a ground plan of a rounded upper dorsal lamella, a lower dorsal lamella that is always gathered to a point at its apex and a lanceolate ventral lamella. I cannot discover any correlation between the size of the individual and the degree of the development of the lamellae: in the larger specimens the lamellae are usually relatively small, and in individuals of about the same size there are wide differences in the size and shape of the lamellae. St. 143, off South Georgia, yielded the largest example, measuring 200 mm. by 13 mm. without the feet.

From St. 173 (South Shetlands) there came four specimens in every way typical of this species, but the lower border of the ventral lamella is serrated. They are quite distinct from *N. serratifolia*, Ehlers, and indistinguishable in every other character from *N. macrura*. I do not regard these serrations as even of varietal value. St. MS 68 (South Georgia) yielded a number of young examples, measuring about 10 mm. by 1 mm. including the feet.

Nephthys lyrochaeta, Fauvel.

Fauvel, 1902, p. 72, text-figs. 9 and 10.
Augener, 1918, p. 160, pl. ii, fig. 12; pl. iii, fig. 59.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear OTL. Bottom: mud and fine sand. Four specimens.

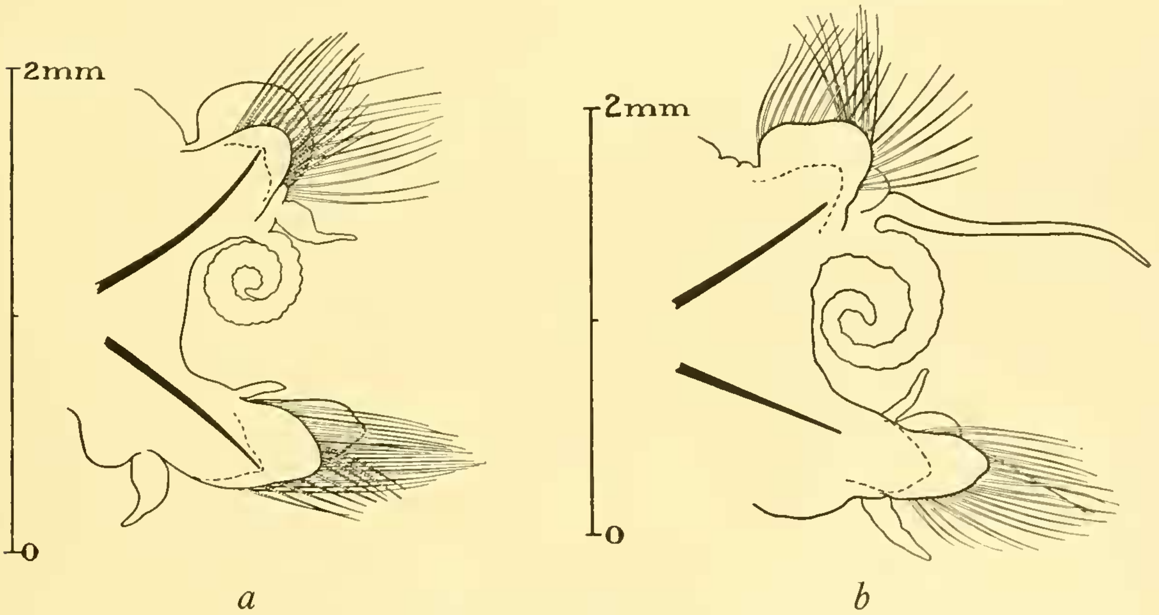

Fig. 40. *Nephthys lyrochaeta.*
a. Fifteenth foot. *b.* Thirty-fifth foot.

Remarks. Four anterior fragments, the largest of which has about 40 chaetigers and measures 18 mm. by 3 mm. including the feet.

The proboscis was withdrawn in all the specimens, which makes the examination of the papillae impracticable. These examples do not altogether agree with Augener's description, especially as regards the dorsal cirri of the anterior segments. The first two chaetigers are biramous and not uniramous as stated by Augener: in this they agree with Fauvel's original description. Moreover, the 1st chaetiger has a long ventral tentacular cirrus, the 2nd has an equally long thread-like dorsal cirrus, and the 3rd has a shorter but still thread-like dorsal cirrus, intermediate in size between that of the 2nd and 4th chaetigers. For about the following twenty chaetigers (Fig. 40, *a*) the dorsal cirri are very short and thick; and between the 20th and 25th chaetigers they lengthen to form the long filiform process shown in Augener's figure (*loc. cit.* pl. iii, fig. 59).

The middle feet (Fig. 40, *b*) correspond to Augener's description and figures. The pedal lobes are conical. The dorsal ramus has a fairly large delicate rounded posterior lamella and a very small anterior lamella: below this is the very long dorsal cirrus and the gill. The ventral ramus has a dorsal cirriform process, a large lanceolate posterior lamella and a small conical anterior lamella. Behind the ventral cirrus the skin is expanded into a small oval membrane.

Ehlers' *Nephthys inermis*, besides having no papillae, lacks the dorsal cirri of the 2nd and 3rd chaetigers.

Nephthys serratifolia, Ehlers.

Ehlers, 1897, p. 24, pl. i, fig. 13.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear DLH. Bottom: fine sand. Six specimens.

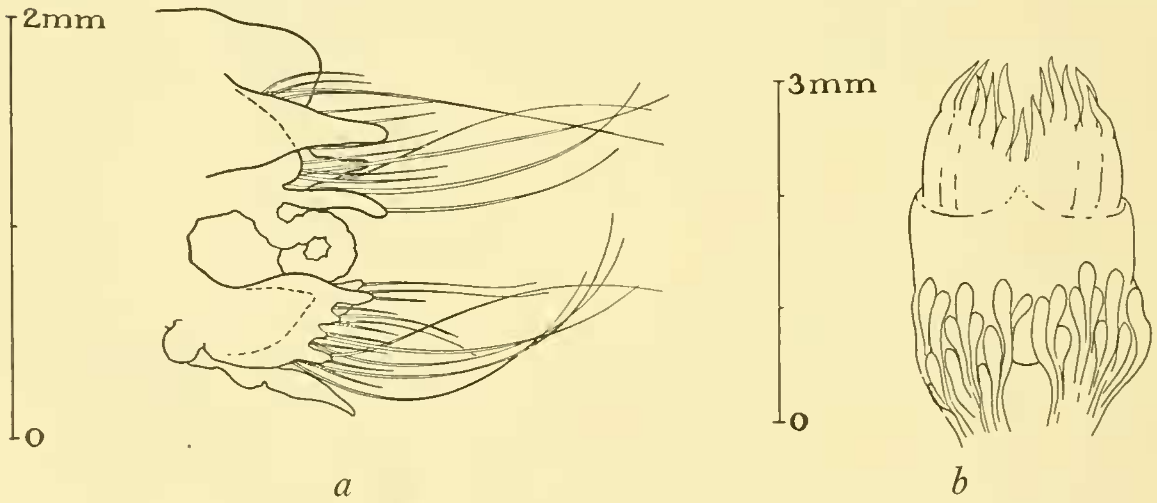

Fig. 41. *Nephthys serratifolia.*
a. Foot. *b.* Proboscis dissected out.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **N 7–T**. Bottom: fine dark sand. One specimen.

St. WS 91. 8. iv. 27. 52° 53′ 45″ S, 64° 37′ 30″ W. From 52° 54′ 30″ S, 64° 39′ 00″ W to 52° 53′ 00″ S, 64° 36′ 00″ W. 191–205 m. Gear **OTC**. Bottom: fine dark sand and shell. One specimen.

REMARKS. This species has a rounded upper posterior dorsal lamella (Fig. 41, *a*), a slender lanceolate lower posterior dorsal lamella, a cirriform process at the base of the gill, a slender anterior digitiform process, a laciniated posterior ventral lamella with about five digitiform processes and a small pointed anterior ventral lamella.

Behind the ventral cirrus there is also a scale-like process similar to that figured by Ehlers. In all the examples the proboscis (Fig. 41, *b*) was withdrawn, but dissection showed a number of short rows of long papillae in addition to the usual large papillae at the apex.

Family SPHAERODORIDAE

Genus **Ephesia**, Rathke

Ephesia antarctica, McIntosh.

McIntosh, 1885, p. 361, pl. xliv, fig. 5; pl. xxii A, figs. 22–23.
Ehlers, 1908, p. 107, pl. xiv, figs. 7–13.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Four specimens.

Family GLYCERIDAE

Genus **Glycera**, Savigny

Glycera capitata, Oersted.

Fauvel, 1923, p. 385, fig. 151 *a–e*.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. One specimen.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Two specimens.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. One specimen.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **NCS–T**. Bottom: fine sand. One specimen. Gear **OTL**. Twelve specimens.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear **BTS**. One specimen.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. One specimen.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Two specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. Two specimens. Gear **NCS–T**. Two specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stone and rock. One specimen.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 126 m. Gear **NRL**. Bottom: stones, mud and rock. One specimen.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75 m. Gear **OTC**. Bottom: sand and shell. One specimen.

St. WS 86. 3. iv. 27. 53° 53′ 30″ S, 60° 34′ 30″ W. From 53° 53′ 00″ S, 60° 37′ 00″ W to 53° 54′ 00″ S, 60° 32′ 00″ W. 151–147 m. Gear **OTC**. Bottom: sand, shell and stones. One specimen.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. One specimen.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. There is a certain amount of variation in the relative length of the pedal lips, but otherwise these specimens are uniform.

I am doubtful of the necessity of keeping *G. capitata* and *G. lapidum* separate. They are usually distinguished on the following characters: *G. capitata* has eight prostomial rings, the support of the jaws is hardly, if at all, notched in the middle and the bristles of the lower bundle are all of the same size. *G. lapidum* has eleven prostomial rings, the support of the jaws is deeply notched in the middle, the ventral cirrus is more pointed and downwardly directed than in *G. capitata*, and the upper and lower bristles of the ventral ramus are stouter than the rest.

Regarding the number of prostomial rings, in the majority of these specimens this cannot be counted with sufficient accuracy to be of any differential value: the supports of the jaws are in many examples deeply notched and with one arm elongated: as a specific differential this character seems to be valueless. Moreover, the extent to which the ventral cirrus is pointed and obliquely directed downwards appears to be variable, and is at any rate difficult to distinguish except within wide limits. The bristles, on the other hand, are very uniform in size and show no differences between the middle bristles of the ventral ramus and the rest.

I am inclined to regard *G. capitata* and *G. lapidum* as one species.

Glycera tesselata, Grube.

Ehlers, 1868, p. 654, pl. xxiv, figs. 2 and 33–34.
Augener, 1918, p. 394, pl. v, fig. 131, text-fig. 49.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

Remarks. A single specimen measuring 19 mm. by 2 mm. including the feet. I am unable to add anything to the already existing accounts of this species.

Glycera convoluta, Keferstein.

Fauvel, 1923, p. 383, fig. 150 *a–h*.
Glycera tridactyla, Schmarda, Augener, 1918, p. 386, pl. v, figs. 142–143, text-fig. 47, with synonymy.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. Three specimens.

Remarks. The specimens from St. 4 are all in bad condition: the largest measures 128 mm. by 7 mm., including the feet, at its broadest part.

The gill begins on the 12th chaetiger and in the anterior segments reaches slightly beyond the end of the bristles: in the hinder segments it is considerably longer. The feet consist of two pointed anterior lips, an upper posterior lip resembling in size and shape the upper anterior lip and a shorter rounded lower posterior lip. There is a triangular ventral cirrus. The small button-like dorsal cirrus is set low down just above the foot. The papillae and the supports of the jaws are of the usual shape for the species. The lips of the foot and especially the ventral cirrus are more prominent than those figured by Augener for his South-West African specimens: and in this relation Augener separates *G. africana*, Arwidsson, from the present species on the ground that the pedal lips and ventral cirri are more pointed and prominent in the former species, and regards *G. africana* as the tropical representative of *G. convoluta*, which occurs in the more temperate zones to the north and south.

I find it hard to believe that the distinction between the two species is valid, for in the shape of their feet the examples from Tristan da Cunha seem to be nearer to *G. africana* than to *G. convoluta*. Augener claims that *G. tridactyla*, Schmarda 1861, is the same as *G. convoluta*, Keferstein 1862. I prefer to retain the familiar name.

Genus **Goniada**, Audouin and Milne-Edwards

Goniada congoensis, Grube.

Arwidsson, 1898, p. 41, figs. 34 and 62.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. Two specimens.

Remarks. The larger specimen from St. 274 measures 147 mm. by 3 mm. without the feet. The number of chevrons on the pharynx is 14 and there are 44 paragnaths: the larger jaw plates have four teeth. The biramous feet begin at the 28th chaetiger. The feet are well figured by Arwidsson.

Augener (1918, p. 396) regards *G. hupferi*, Arwidsson, as a young form of this species.

Family EUNICIDAE, sensu Grube

Sub-family *EUNICINAE*, Kinberg

Genus **Eunice**, Cuvier

Eunice pennata (O. F. Müller).

Fauvel, 1923, p. 400, fig. 156 *h–o*.
Eunice norvegica, Augener, 1928, p. 727, with synonymy.

St. 6. 1. ii. 26. Tristan da Cunha. 3 miles N 30° E of Settlement. 80–140 m. Gear **DL**. Bottom: rock. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. One specimen.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. Six specimens.

St. 156. 20. i. 27. 53° 51′ 00″ S, 36° 21′ 30″ W. 200–236 m. Gear **DLH**. Bottom: rock. Ten specimens.

St. 157. 20. i. 27. 53° 51′ 00″ S, 36° 11′ 15″ W. 970 m. Gear **DLH**. Bottom: diatomic ooze, stones, fine sand. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One hundred and ten specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. Fifty-five specimens.

Remarks. The colour in spirit is pale brown, and an average specimen measures about 80 mm. by 4 mm. including the feet, and has about 100 chaetigers. The head is only slightly indented in front. The tentacles are not strictly moniliform but constricted at intervals into a number of articles of different length. The median tentacle reaches back to the 3rd–4th chaetiger, and the outer lateral tentacles are about half the length of the inner lateral. The tentacular cirri reach to the anterior edge of the buccal segment; these are indistinctly annulated. The buccal segment is equal in length to the two following segments. The gills begin with a single filament on the 3rd (very rarely on the 5th) segment and end between the 40th and 45th segments. Very rarely they are continued to about the 60th chaetiger. They are at their maximum development between the 20th and 30th chaetigers, where they are usually composed of 7–8 filaments. One large specimen from St. 152 has as many as 15 filaments. The acicula are yellow, as is also the hooded bidentate subacicular chaeta which begins between the 30th and 35th chaetigers. The comb chaetae have the lateral tooth of one side much elongated. There are two pairs of pygidial styles, the upper long and the lower very short.

The anterior edge of the lower jaw plates (Fig. 42, *a*) is calcareous and irregular, often with three more or less distinct teeth.

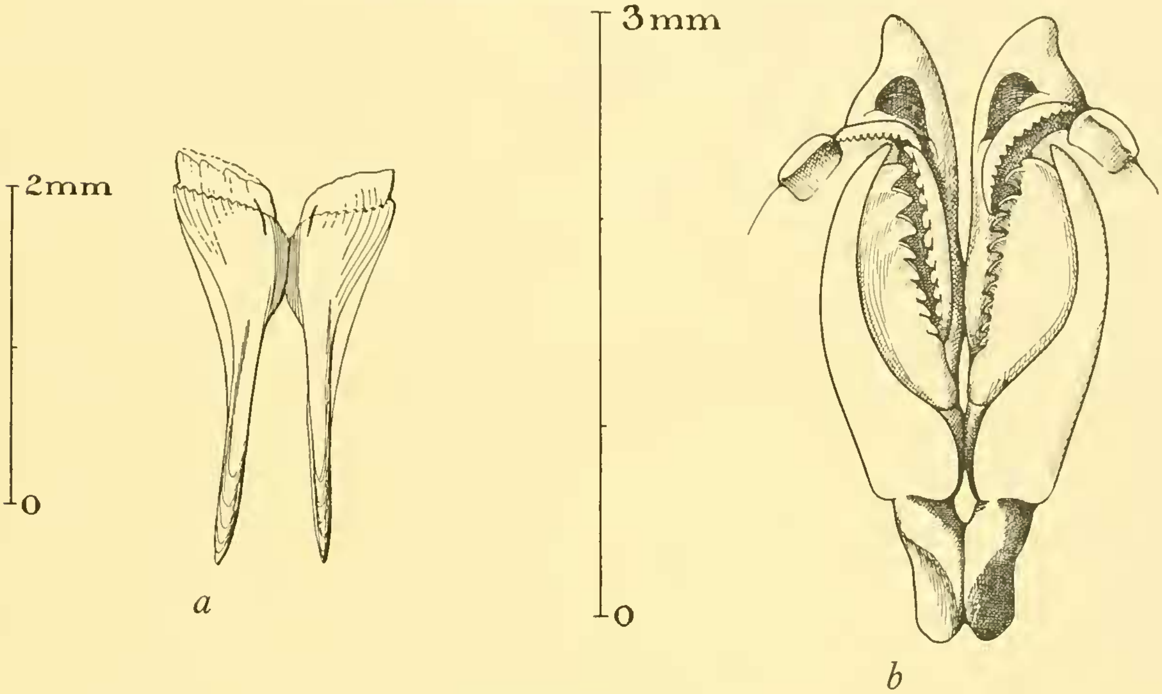

Fig. 42. *Eunice pennata*.
a. Lower jaw plates. *b*. Upper jaws.

The dental formula (Fig. 42, *b*) is as follows: 8 or 9—9 : 9 or 10 + 7 or 8—12. Maxilla V is represented by a small chitinous plate.

These specimens seem to me to be indistinguishable from a rather small example of the uncommon deep water European species. Augener and Fauvel give the length as between 60 and 150 mm. Fauvel gives the number of gill filaments in a fully developed branchia as between 8 and 17, and Augener as between 10 and 22. In these specimens 8–15 is the maximum. Fauvel states that the gills cease between the 30th and 46th segments and Augener about the 60th segment. In these specimens they usually cease between the 40th and 45th segments.

This species is closely related to *E. atlantica*, Kinberg.

Ehlers (1901, p. 125) gives an account of a small example of the latter species measuring 41 mm. long and with 124 chaetigers. In this the median tentacle reaches back to the 9th segment (7th chaetiger) and the first and second segments are together equal in length to the five following segments. The gills extend from the 3rd to the 60th chaetigers and have a maximum of 20 branches.

The dental formula is 10—12 : 10 + 4—9.

Another small specimen measuring 30 mm. long described by Ehlers (1908, p. 87) has gills extending from the 3rd to the 35th chaetiger and a maximum of four branches: the ventral cirrus has an elongated thread-like tip.

The dental formula is 7—8 : 7 + ?—?: Ehlers' figure of the upper jaws is not very clear.

I think it rather doubtful that the specimen ascribed with hesitation to *E. atlantica* by Ehlers in 1901 is conspecific with the one described by him in 1908.

Eunice savignyi, described by Grube from the Philippines and by Ehlers (1908, p. 88) from 500 m. off the Cape of Good Hope, is also very close to, if not identical with, *E. pennata*. The median tentacle reaches back to the 6th chaetiger: the first two segments are not as long as the first three chaetigers. The gills extend from the 3rd to the 40th chaetigers and have a maximum of 6–7 branches. He records a single pair only of anal cirri.

The dental formula is 7—6 : 7 + 7—6. The acicula and bristles are similar to those described for *E. pennata*.

According to Augener *E. pennata*, O.F.M., is identical with *Nereis norvegica*, Linnaeus (*partim*).

Eunice siciliensis, Grube.

Fauvel, 1923, p. 405, fig. 159 *e–m*.
Augener, 1918, p. 327.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Five specimens.

Remarks. These specimens were taken, together with examples of *E. longicirrata*, *E. vittata* and *Nicidion edentulum*.

Eunice vittata (Delle Chiaje).

Fauvel, 1923, p. 404, fig. 158 *h–n*.
Augener, 1918, p. 321.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Fifteen specimens.

Remarks. The anterior ends of 15 young specimens, the largest of which measures 30 mm. by 1 mm. without the feet for 55 chaetigers. I can discover no annulation of the tentacles. The gills begin on the 3rd and end about the 35th chaetiger and their maximum number of filaments is five. I see only one tridentate subacicular chaeta.

The dental formula is 12—11 : 9 + 10—15.

I can see nothing to separate this species from *E. indica*, Kinberg, a good account of which is given by Crossland (1904, p. 318).

Eunice longicirrata, Webster.

Treadwell, 1921, p. 11, pl. i, figs. 1–4, text-figs. 3–12.
Eunice articulata, Ehlers, 1887, p. 83, pl. xxiv, figs. 8–10.
Eunice antillensis, Ehlers, 1887, p. 84, pl. xxiv, figs. 5–7.
Augener, 1918, p. 314.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Fifteen specimens.

REMARKS. The largest complete specimen measures 160 mm. by 3 mm. including the feet.

The body is extremely slender and not thickened in the anterior region as is usual in the genus. The colour is a pale gold: the 4th chaetiger is colourless and the segmental grooves are marked with a thin colourless band which widens slightly from before backwards. Towards the middle of the body this colourless band widens out into a triangular spot in the mid-dorsal line. The colour of the ventral surface is lighter than that of the dorsal. The tentacles, tentacular cirri and dorsal cirri of about the first seven segments are strongly moniliform with a brown colour band at each constriction. Further back the segmentation of the dorsal cirri is not so clear and the banding appears less regular.

The prostomium is deeply incised in front: the median tentacle reaches to the 4th chaetiger and the two lateral pairs are shorter. The tentacular cirri are unusually long, reaching to the end of the prostomium.

The 1st segment is equal in length to the first two chaetigers, and the 2nd segment is about half the length of the 1st chaetiger.

The gills begin as a single filament at the 3rd chaetiger and are continued for 80–100 chaetigers. There are usually about 40 post-branchial segments, but in one posterior fragment I counted as many as 80. The maximum number of filaments in these specimens is four. At about the 15th chaetiger reduction in the number of filaments begins, and at the 35th chaetiger a single filament remains; this persists to the end of the gill-bearing region. The gills are never more than half the length of the dorsal cirri.

The ventral cirrus is a stout subulate structure till the 5th foot, where it becomes mammiform: at about the 30th foot it lengthens out again into a tapering process. At the 30th foot the black bidentate subchaetal spine appears.

The foot is supported by a pair of large black acicula with tapering ends. The compound bristles are clearly bidentate and the comb chaetae have long terminal teeth. The bristles are figured by Treadwell.

The dental formula is 6—5 : 7 + 6—10. The under jaws have calcareous end-pieces with jagged irregularly toothed edges. The upper jaws are well figured by Treadwell.

E. articulata, Ehlers, is treated by Treadwell as a synonym of the present species, and a comparison of these specimens with Augener's account of his examples of *E. antillensis*, Ehlers, from the Gulf of Guinea has made me strongly of the opinion that *E. antillensis* is also a synonym of this species. Like the allied *E. coccinea*, it is very variable in coloration and in the number and arrangement of the gills.

According to Treadwell's account the gills begin on the 5th somite (3rd chaetiger?) and disappear at about the 58th somite: they have a maximum of 15 or more filaments. In *E. articulata* Ehlers records the gills as ending between the 30th and 48th segments and as having a maximum of 13 filaments.

Ehlers again writes that the gills of his *E. antillensis* extended from the 4th to the 40th foot and had a maximum of six filaments. Augener's specimens had gills extending from the 3rd to the 55th feet with a maximum of five or six filaments.

There is also much variation in the recorded relative lengths of the tentacles. In Augener's specimens the unpaired tentacle reached to the 10th chaetiger. Ehlers gives the 20th segment (18th chaetiger) for both his *E. antillensis* and his *E. articulata*. Treadwell gives the 8th somite (6th chaetiger) for the length attained by the unpaired tentacle in his specimens, and in the present examples it reaches only to the 4th chaetiger.

The present species is characterised by the very long tentacular cirri and by the great length of the dorsal cirri in proportion to the gills.

Eunice rousseaui, Quatrefages.

Fauvel, 1923, p. 403, fig. 158 *a–g*, with synonymy.

Saldanha Bay Beach, South Africa.

REMARKS. A large specimen measuring 220 mm. by 9 mm. without the feet.

Eunice murrayi, McIntosh.

McIntosh, 1885, p. 288, pl. xxxix, figs. 7–8; pl. xx A, figs. 19–20; and 1924, p. 26.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear NRL. Bottom: sand. Three specimens.

REMARKS. Three small and ill-preserved specimens, two of which are incomplete. The complete example measures 38 mm. by 1 mm. without the feet and has about 80 chaetigers. The gills begin at the 3rd chaetiger, have about four filaments at the 8th chaetiger, rapidly reach their maximum number of nine to ten branches and disappear by about the 35th chaetiger. McIntosh's type specimen has from about the 30th foot onwards two yellow tridentate subacicular crochets: in these specimens there is only a single tridentate crotchet to each foot. On the other hand, McIntosh in commenting on a specimen dredged at 240 fathoms off the Cape (*loc. cit.* 1924) writes, "a stout winged crochet," as if in that specimen there were only one.

The jaws are well figured by McIntosh. The dental formula is as follows: 6—7 : 7 + 7—8.

With the material at my disposal there is nothing I can add to McIntosh's account.

According to Augener this species is a synonym of *E. australis*, Quatrefages.

Genus Nicidion, Kinberg

Nicidion kinbergii, Webster.

Webster, 1884, p. 320, pl. xii, figs. 81–88.
Treadwell, 1921, p. 91, pl. vi, figs. 5–8, text-figs. 324–332.

St. 1. 16. xi. 25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′ 00″ W. 16–27 m. Gear **NRM**. Bottom: coral, sand and shell. Two specimens.

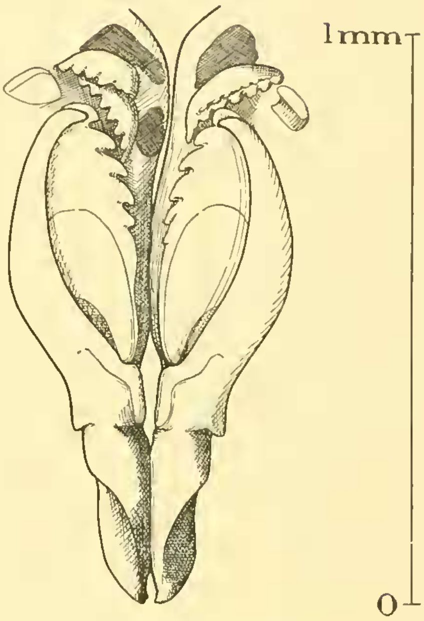

Fig. 43. *Nicidion kinbergii.* Upper jaws.

Remarks. The largest of the two incomplete specimens measures 13 mm. by 1 mm. including the feet and has about 65 chaetigers. The colour in spirit is a pale brown. The prostomium is deeply incised in front and the tentacles are short, the median, which is the longest, barely reaching to the 2nd chaetiger. The tentacular cirri are so small as easily to be overlooked.

The flattened area of the body with the short crowded segments extends from about the 5th to the 40th segments, about ten segments further back than in Crossland's (1904, p. 327) *Nicidion gracilis*. Moreover, the change over to the longer and more arched condition of the posterior somites is much more gradual than as recorded by Crossland for his species.

For the first five feet, there is a stout dorsal cirrus reaching to the tips of the bristles, and a stout conical ventral cirrus. By the 10th chaetiger the dorsal cirrus is much reduced and the ventral cirrus is a conical projection on top of a glandular pad. By the 25th the dorsal cirrus is still further reduced in size and the ventral cirrus is a mere button. At the 50th chaetiger the dorsal cirrus is a slight digitiform process as in the 25th foot and the ventral cirrus is again a small conical process.

The bristles agree with those figured by Treadwell. At about the 35th chaetiger the bidentate acicular chaeta appears, and at the same time the yellow aciculum gives place to a stouter black aciculum.

The dental formula (Fig. 43) is 5—5 : 5 + 4—6. Details of the jaws are given in the figure.

N. gracilis, Crossland, *N. brevis*, Ehlers (1887, p. 98), and the present species are all closely allied. In addition to the differences between *N. gracilis* and *N. kinbergii* already mentioned, Crossland makes no reference to the winged type of capillary bristle such as is present in Webster's species.

Ehlers' *N. brevis* from Key West has slightly different upper jaws and the secondary lateral supports to the lower jaws figured by Ehlers (Pl. xxix, fig. 2) are absent from the present species.

Nicidion edentulum, Ehlers.

Fauvel, 1914, p. 128, pl. vii, figs. 10–12.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Four specimens.

REMARKS. These specimens are all incomplete posteriorly. The largest measures 105 mm. by 2 mm. without the feet, for 165 chaetigers.

They were found with a number of *Eunice siciliensis*, from which this species seems to be indistinguishable except for the absence of gills. Fauvel's suggestion that *N. edentulum* may be a gill-free variety of *E. siciliensis* seems to me to be plausible.

Sub-family *ONUPHIDINAE*, Levinsen

Genus **Diopatra**, Audouin and Milne-Edwards

Diopatra cuprea (Bosc).

Augener, 1918, p. 350, text-fig. 39, with synonymy, excluding *D. punctifera*, Ehlers.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. Eighteen specimens.

REMARKS. The largest of these specimens measures 185 mm. by 5 mm. without the feet. The gills begin on the 4th or 5th chaetiger and end between the 35th and 40th. The three posterior occipital tentacles have 18 rings to their tentaculophores and the paired tentacles reach back to the 14th–16th chaetiger. The comb chaetae have about 20 teeth. There are no tubes.

I have nothing to add to Augener's article on this species. I give my reasons for doubting that *D. punctifera*, Ehlers, is synonymous with *D. cuprea* in my remarks on the former species.

Diopatra punctifera, Ehlers.

Ehlers, 1908, p. 79, pl. x, figs. 1–11.

St. WS 4. 30. ix. 26. 32° 45′ 00″ S, 18° 10′ 00″ E. 45–47 m. Gear **DL**. Fourteen specimens.

REMARKS. An average specimen measures about 75 mm. by 4 mm. without the feet. The colouring is similar to that of *D. cuprea*. The posterior occipital tentacles have eight rings to their ceratophores and the paired tentacles reach back to the 4th chaetiger. The comb chaetae are wide at the apex and have 15–20 teeth. The gills begin on the 5th chaetiger and are continued for about 40 segments.

The dental formula (Fig. 44, *a*) is 7—8 : 7 + 6—9, and the upper jaws resemble Ehlers' figure.

These specimens correspond closely to Ehlers' description and figures except in the structure of the lower jaw plates (Fig. 44, *b*). These are black except for the calcareous end-pieces, very thick, heavy and spatulate: they are widely different from those figured by Ehlers. It may be unjustifiable to refer these specimens to Ehlers' species, when the lower jaw plates differ so widely, but I do not know to what extent these are liable to vary within the species.

Among these specimens there are five preserved in their tubes: the latter are round in section and have a thick layer of mud overlying the tough parchmenty basis. Inside one of these tubes were a number of young specimens together with the parent: these specimens measure about 15 mm. by 1 mm., and are at a much later stage of development than the post-larval *Diopatra cuprea* described by Monro (1924, p. 193). They were not very well preserved within the tube, but as far as I can discover, they do not differ from the adult form except in size. Augener (1918, p. 354) regards this species as identical with *D. cuprea*. I can only say that in the examples of the latter species examined by me the relative length of the occipital tentacles and the number of rings to their ceratophores seem to be constantly greater than in Ehlers' species. Ehlers' specimens came from 35° 19′ S, 20° 15′ E.

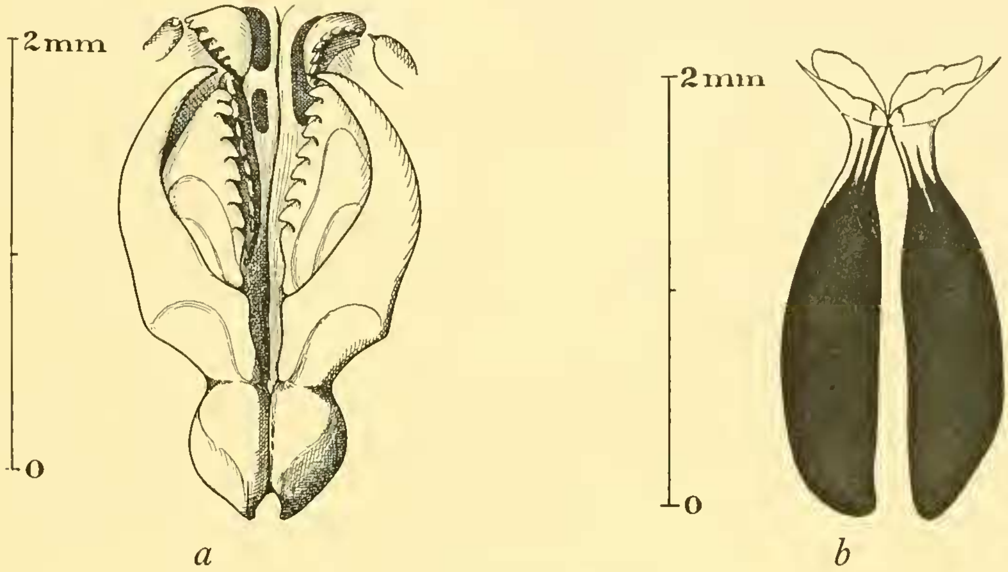

Fig. 44. *Diopatra punctifera.*
a. Upper jaws. *b.* Lower jaw plates.

Genus **Epidiopatra**, Augener

Epidiopatra hupferiana, Augener.

Augener, 1918, p. 355, pl. v, figs. 104–106; pl. vi, fig. 212, text-fig. 40.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. Two specimens.

Remarks. Two small specimens incomplete posteriorly: the larger measures 10 mm. by 1 mm. including the feet and has 32 chaetigers. They agree with Augener's description.

There are no tentacular cirri. The ventral cirrus and the cirriform prolongation of the posterior lip of the chaeta sac disappear by the 4th chaetiger. The pseudo-compound bidentate bristles of the first four feet are as figured by Augener. The comb chaetae (Fig. 45, *a*) have about 12 rather long closely set teeth. The capillary bristles (Fig. 45, *b*) have a distinct narrow border along both edges. There is a pair of large yellow subacicular bidentate hooks (Fig. 45, *c*). The gills begin on the 4th chaetiger and there are only three pairs in all. They have a long thick stem with a crown of spiral filaments.

Regarding the jaws, I cannot with my present material discover the shape of the carriers; otherwise they resemble Augener's figure. The dental formula is 9—10 : 10 + 7—8.

I have rather doubtfully referred these two fragments to Augener's species.

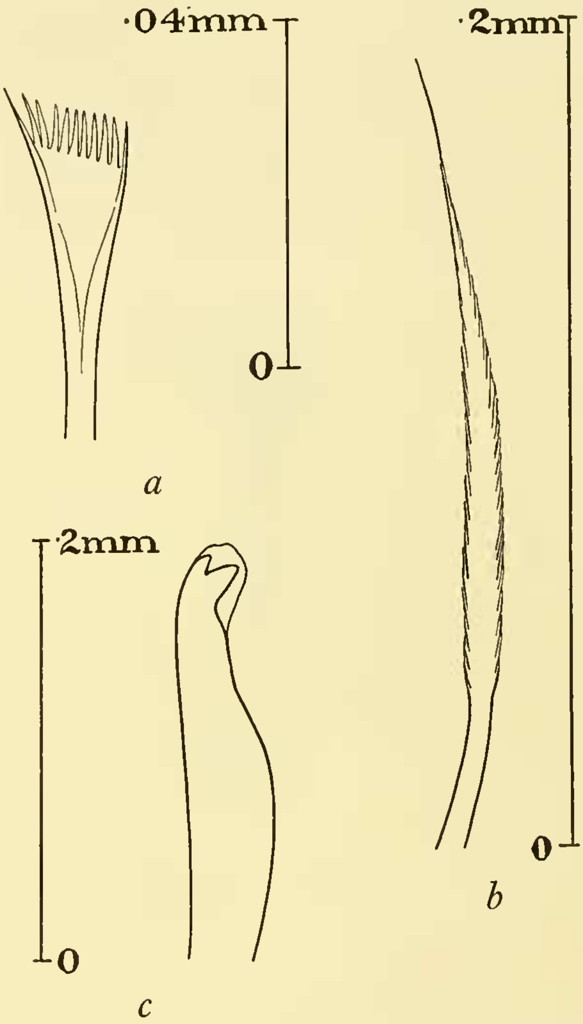

Fig. 45. *Epidiopatra hupferiana*.
a. Comb chaeta. *b*. Capillary bristle. *c*. Subchaetal hook.

Genus **Rhamphobrachium**, Ehlers

Rhamphobrachium ehlersi, n.sp.

St. 172. 26. ii. 27. Off Deception Island, South Shetlands. 62° 59′ 00″ S, 60° 28′ 00″ W. 525 m. Gear **DLH**. Bottom: rock. Two specimens.

Description. Two fragments incomplete posteriorly. The larger measures 28 mm. by 4 mm. including the feet and has 35 chaetigers. In spirit there are no colour markings. There is a pair of globular anterior tentacles. All the remaining tentacles are short and thick. The outer laterals are spindle-shaped with massive tentaculophores: the inner laterals are more slender and subulate. They reach to the anterior border of the 2nd chaetiger. The median tentacle is a little shorter. The stout tentacular cirri are inserted on the anterior border of the 1st segment.

The first three pairs of feet are much enlarged and carried forward beneath the body. In addition to a stout dorsal cirrus and a small conical ventral cirrus, there are a small papilla on the inner and anterior face of the chaetal lobe and two papillae, a ventral and a dorsal, at the apex of the chaetal lobe. Behind the first three modified chaetigers the feet are of the usual onuphid shape (Fig. 46, *a*). The dorsal cirrus is rather short and thick, just surpassing the end of the chaetal lobe. The ventral cirrus is a rounded lobe and it is transformed into a pad by the 6th chaetiger. The cirriform prolongation

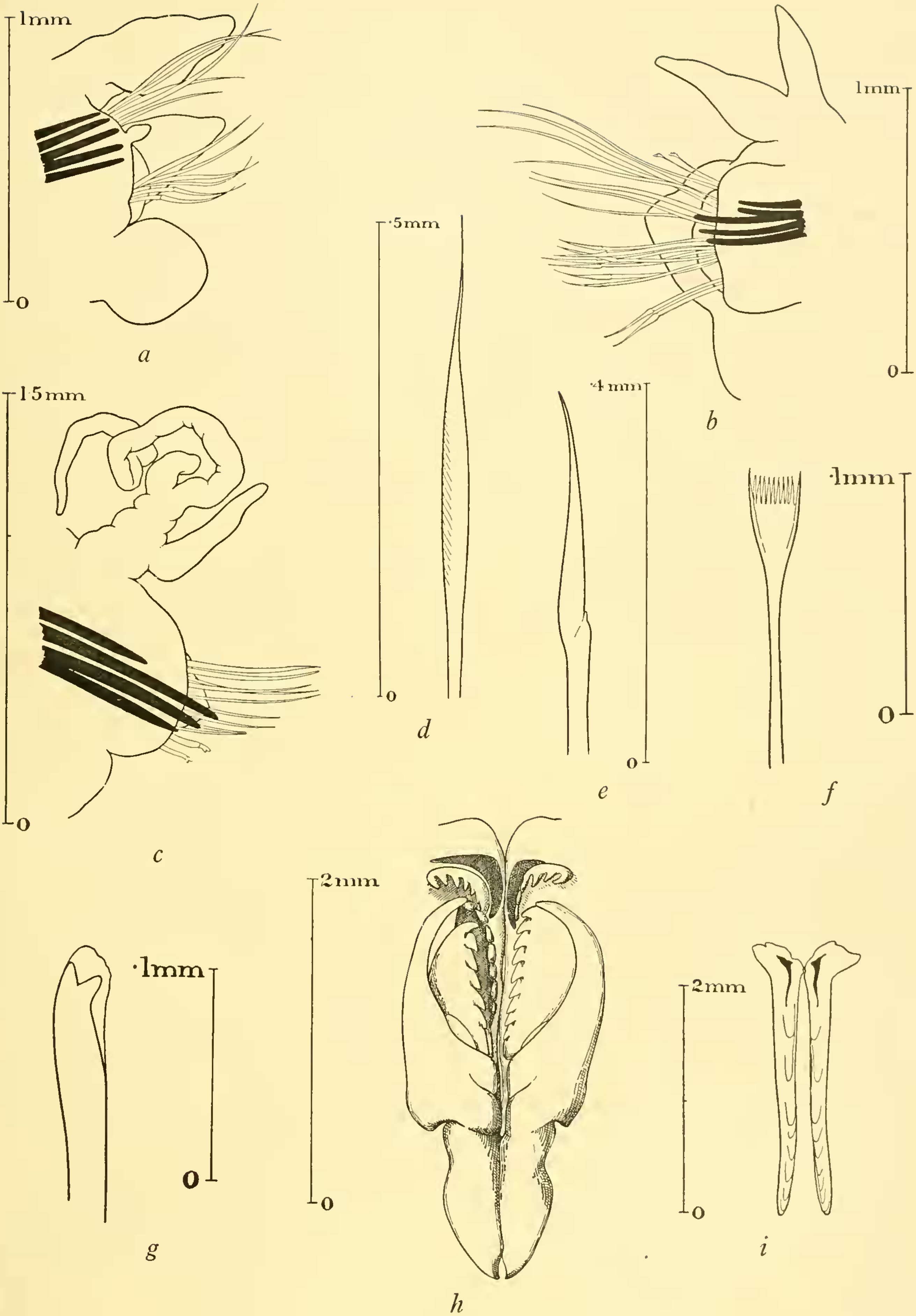

Fig. 46. *Rhamphobrachium ehlersi.*

a. Fourth foot. *b.* Eleventh foot. *c.* Twenty-second foot. *d.* Dorsal capillary bristle. *e.* Compound bristle. *f.* Comb chaeta. *g.* Subacicular hook. *h.* Upper jaws. *i.* Lower jaw plates.

of the posterior lip of the chaeta sac disappears by the 10th chaetiger. The gills begin as a single filament on the 10th–11th chaetiger (Fig. 46, *b*) and at the 20th are bifilamentous (Fig. 46, *c*). In the present specimens there are never more than two filaments. The fully developed gill is two or three times as long as the dorsal cirrus.

All the bristles of the first three modified chaetigers are broken off. The 4th foot contains a dorsal bundle of capillary bristles (Fig. 46, *d*) and a ventral bundle of compound bristles with knife-like blades (Fig. 46, *e*). There are three long pointed yellow acicula supporting the feet. At the 10th foot there are, in addition to the two types of bristles already described, two or three dorsally situated comb chaetae (Fig. 46, *f*). At about the 20th foot a pair of yellow hooded bidentate subacicular hooks (Fig. 46, *g*) appear and take the place of the compound bristles.

The dental formula is 7—9 : 9 + 6—6, and the details of the jaws are shown in the figure (Fig. 46, *h*). The anterior part of the lower jaws (Fig. 46, *i*) is calcareous.

REMARKS. There are three known species of this rare abyssal genus, *R. agassizi*, *R. brevibrachiata* and *R. chuni*. The present species is distinguished by the low number of filaments to the gills and the character of its bristles. Fauvel apparently does not accept the genus *Rhamphobrachium*, for he redescribes (1923, p. 417) the *Diopatra brevibrachiata*, Ehlers (1875, p. 49), under the generic name *Onuphis*. Ehlers (1908, p. 78) has himself recognised that this species falls within the genus *Rhamphobrachium*.

Genus **Onuphis**, Audouin and Milne-Edwards

Onuphis eremita, Audouin and Milne-Edwards.

Fauvel, 1923, p. 414, fig. 163 *a–l*.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. One specimen.

REMARKS. A single specimen incomplete posteriorly and measuring 23 mm. by 2 mm. without the feet. There are 60 chaetigers. This specimen corresponds in detail with Fauvel's account.

There are branchiae on every foot. Up to the 22nd foot the branchiae are single: on the 23rd foot there are two filaments, which are continued to the end of the fragment.

That which Fauvel describes as a little conical tubercle between the chaetigerous lobe and the base of the dorsal cirrus is only present on the first three to four chaetigers. It appears to be a prolongation of the anterior lip of the chaeta sac. The ventral cirrus disappears by the 6th chaetiger and the cirriform prolongation of the posterior lip of the chaeta sac by the 10th.

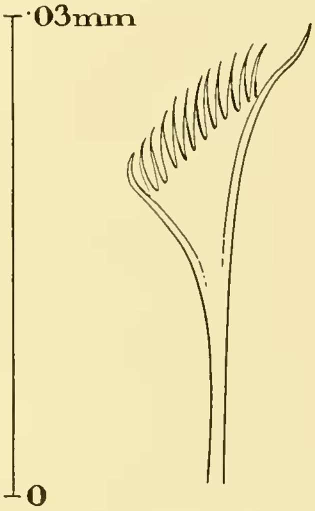

Fig. 47. *Onuphis eremita*. Comb chaeta.

The dental formula is as follows: 7—8 : 8 + 6—8. I figure a comb chaeta (Fig. 47).

Onuphis notialis, n.sp.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Five specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Two specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: mud and rock. Four specimens.

DESCRIPTION. The most complete specimen measures 35 mm. by 2 mm. and has 65 chaetigers. There are dark red segmental colour bands across the body and in two or three examples a longitudinal red stripe down the back. There is a pair of globular frontal tentacles. There are five occipital tentacles. The inner lateral occipital tentacles are the longest, reaching to the 7th chaetiger, and the median is slightly shorter. I can discover no eyes. The tentacular cirri are inserted on the anterior border of the buccal segment just behind the inner laterals. Up to about the 5th chaetiger the body is more cylindrical and the segments longer than in more posterior regions where the body is dorso-ventrally flattened

The first five feet have long cirriform postchaetal lips (Fig. 48, *a*), almost as long as the dorsal cirri: the postchaetal lips diminish in size from before backwards and finally disappear about the 16th chaetiger. In the middle and posterior regions of the body the dorsal cirrus just fails to reach the tips of the bristles. The digitiform ventral cirrus is absorbed into a pad by the 5th foot (Fig. 48, *b*). There are no branchiae.

The first five feet have hooded tridentate pseudo-compound bristles (Fig. 48, *c*) and delicately bordered capillaries. In some preparations one of the teeth of the pseudo-compound bristles is lost and they have a bidentate appearance. Behind the 5th foot the bristles consist of capillaries (Fig. 48, *d*) and comb chaetae (Fig. 48, *e*) with about 12 rather long teeth. At about the 15th chaetiger a pair of yellow bidentate hooded crochets (Fig. 48, *f*) appear. The feet are supported by two slender yellow acicula.

The details of the jaws (Fig. 48, *g* and *h*) are given in the figure: the dental formula is 7—9 : 7 + 8—10.

REMARKS. I was much tempted to regard these specimens as young examples of *Onuphis abranchiata*, McIntosh (1885, p. 314), described by that author from Antarctic waters, but there are many points of difference between these specimens and those of McIntosh.

In McIntosh's type specimens the postchaetal lip of the 1st foot is thick and truncated; at the 2nd foot it is long and cirriform, slightly shorter than the dorsal cirrus; it diminishes in size from before backwards but appears to be continued to the end of the body. The ventral cirrus has become a pad by the 4th foot. The pseudo-compound chaetae are described as bidentate and not tridentate, as in these specimens. Moreover,

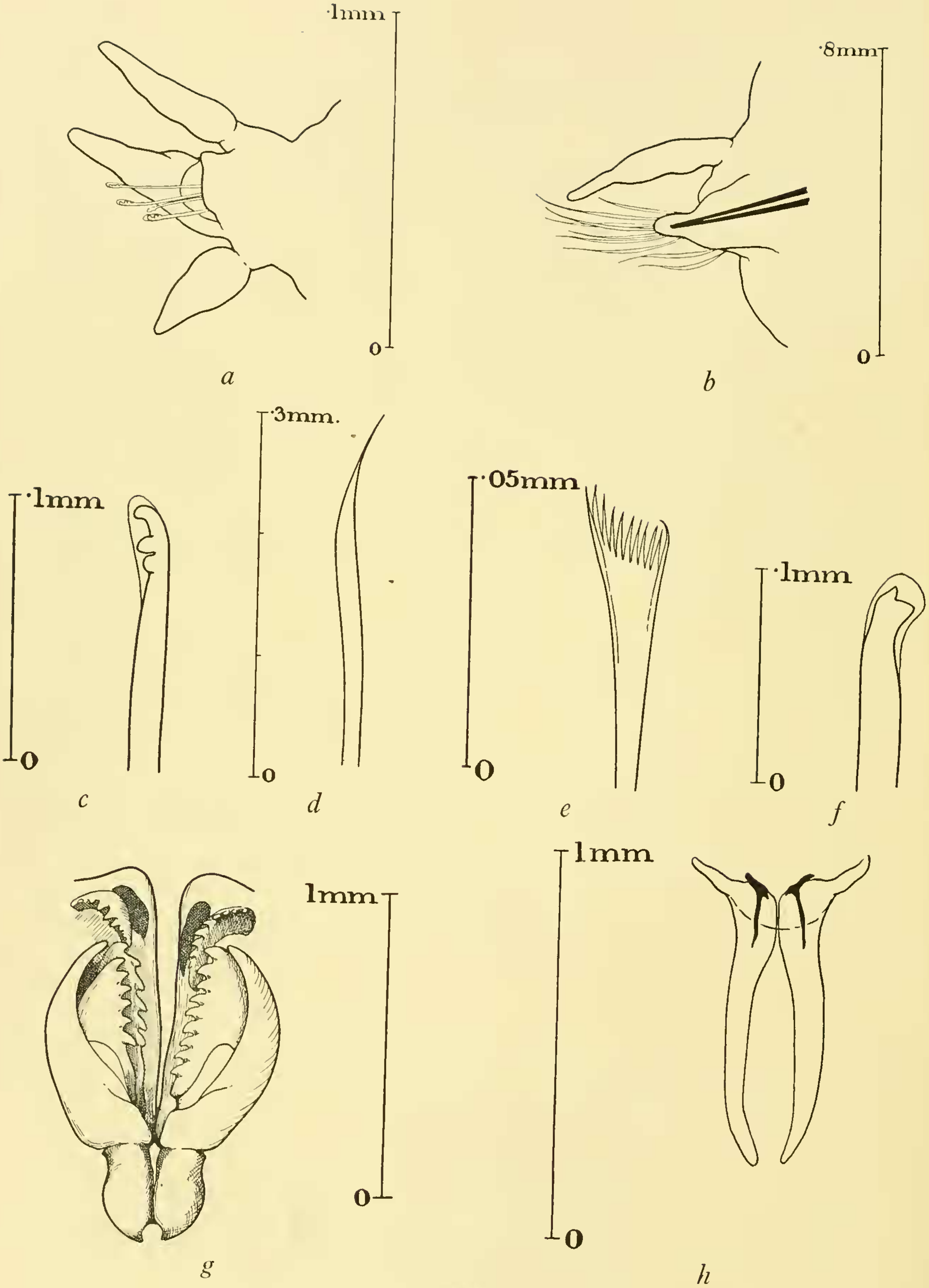

Fig. 48. *Onuphis notialis.*

a. Second foot. *b.* Tenth foot. *c.* Tridentate bristle from second foot. *d.* Capillary bristle from tenth foot. *e.* Comb chaeta. *f.* Hooded crochet. *g.* Upper jaws. *h.* Lower jaw plates.

the jaws, as figured by McIntosh, differ in many details of structure from those of the present specimens.

O. sombreriana (McIntosh), and *O. minuta* (McIntosh), are both abranchiate species but with bidentate pseudo-compound bristles.

Onuphis quadricuspis, M. Sars.

Fauvel, 1923, p. 418, fig. 165 *f–p*.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. Three specimens.

St. WS 78. 13. iii. 27. 51° 01′ 00″ S, 68° 04′ 30″ W. From 51° 01′ 00″ S, 68° 02′ 00″ W to 51° 01′ 00″ S, 68° 07′ 00″ W. 95 m. Gear **DC**. Bottom: fine dark sand. Five specimens.

St. WS 95. 17. iv. 27. 48° 58′ 15″ S, 64° 45′ 00″ W. From 48° 57′ 00″ S, 64° 45′ 00″ W to 48° 59′ 30″ S, 64° 45′ 00″ W. 109 m. Gear **DC**. Bottom: fine dark sand, stones and shell. Two specimens.

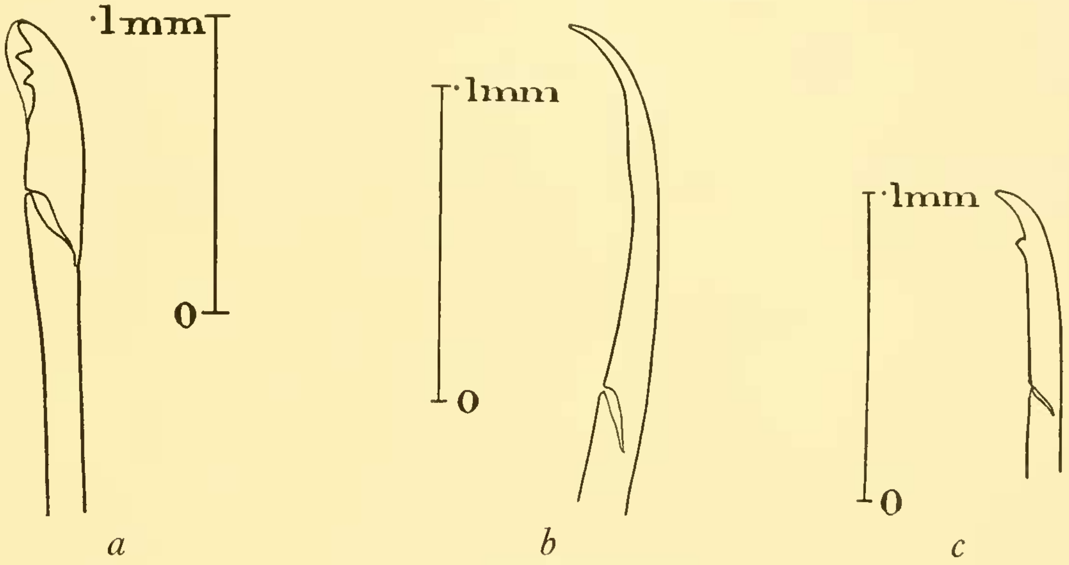

Fig. 49. *Onuphis quadricuspis*.

a. Tridentate pseudo-compound bristle. *b*. Smooth pseudo-compound bristle. *c*. Bidentate pseudo-compound bristle.

Remarks. All the examples are incomplete. The most perfect has about 40 chaetigers and measures 30 mm. by 2 mm. including the feet. In one specimen there are red transverse segmental bands across the back: they are either absent or very faint for the first six chaetigers. The first four to five chaetigers form a kind of neck: the segments are narrow and cylindrical and 1½ times as long as a segment from the middle of the body. There are two short ovoid frontal tentacles. The inner laterals reach to the 3rd chaetiger and the outer laterals and the median are shorter than these. The buccal segment has a pair of short tentacular cirri inserted on its anterior border behind the inner laterals. The shape of the anterior segments is as usual in the genus. The ventral cirrus is converted into a pad by the 6th–7th chaetiger. The cirriform posterior lip of the chaeta sac disappears about the 17th foot. The fully developed branchia is longer than the dorsal cirrus. The branchiae begin as a single filament on the 6th foot, are bifilamentous at the 7th and have three filaments at the 30th. The latter is the maximum number for these specimens.

The first five chaetigers have capillary bristles and pseudo-compound bristles: of these there are a few smaller and apparently unused examples which are hooded and clearly tridentate (Fig. 49, *a*), but the great majority are absolutely smooth and apparently without hoods (Fig. 49, *b*): a few have a single tooth below the apex (Fig. 49, *c*). These bristles are puzzling: I am inclined to regard them as old and worn examples of what were once hooded tridentate bristles. The comb chaetae have about 12 rather long narrow teeth. At about the 15th chaetiger a pair of bidentate hooded subacicular hooks appears. The feet are supported by three rather slender yellow pointed acicula.

The dental formula is as follows: 8—8 : 8 + 5—9: Fauvel's figure of the jaws (Fig. 165 *g*) differs in a number of details from that of McIntosh (1908, Pl. lxiv, fig. 2). The jaws of the present specimens correspond closely to McIntosh's figure.

Except in regard to certain of the anterior pseudo-compound bristles, already mentioned, these specimens correspond to the descriptions of this deep-water European species. Fauvel, however, states that it has no transverse colour bands: these are present in my specimens. It is noteworthy that McIntosh (1924, p. 36) has recorded the presence of this species at a depth of 47 fathoms off the Cape of Good Hope.

Onuphis iridescens (Johnson).

Northia iridescens, Johnson, 1901, p. 408, pl. viii, figs. 86–87; pl. ix, figs. 88–92.
Moore, 1911, p. 255.

St. 228. 2. v. 27. 53° 33′ 00″ S, 61° 49′ 30″ W. 650 m. Gear N 70 V. ? Net touched bottom. Bottom: diatomic ooze. Two specimens.

Remarks. One complete specimen and a second incomplete posteriorly. The complete specimen measures 72 mm. by 1 mm. without the feet. The colour in spirit is a pearly iridescent white. There are no eyes. There is a pair of globular frontal tentacles, and the occipital tentacles have long ringed tentaculophores. The inner pair is the longest, reaching to the 8th chaetiger, and the outer are about half their length. The median reaches to the 4th chaetiger. The tentacular cirri are long and filiform.

Johnson's figure of the 2nd foot of *O. elegans* (Johnson, *loc. cit.* Pl. viii, fig. 80) is exactly similar to that of this species. The long postchaetal processes are reduced to small papillae by the 12th foot. The ventral cirrus begins to be absorbed by the 6th foot. From about the 15th to the 25th foot the cirriform gill and dorsal cirrus are of approximately the same length. Further back the cirrus becomes increasingly shorter than the gill.

In the complete specimen the gills begin on the 1st chaetiger and are continued to about the 40th segment from the end of the body. The gills are slender, cirriform and unifilamentous throughout.

The pygidium carries two pairs of styles, one about half the length of the other. A pair of hooded bidentate subchaetal spines appear at about the 15th foot.

The jaws are small and rather delicate. The carriers taper down to two fine points: the dental formula is 8—8 : 9 + 5—7.

In the same bottle with the specimens are three worm tubes: they have a very narrow lumen and are made of a soft membraneous substance thickly coated with green mud.

My specimens from off Cape Horn seem to correspond with Johnson's description of his examples dredged at Victoria, British Columbia. The body measurements are, however, different. Johnson gives 38 mm. by 3 mm. for 52 somites; my complete specimen measures 72 mm. by 1 mm. without the feet for 170 segments.

Onuphis elegans (Johnson), from an unknown locality, is very close to and perhaps identical with this species. Chamberlin (1919, p. 295) separates them on the ground of certain differences in the number of teeth in the jaw plates and in the shape of the teeth of the pseudo-compound bristles, both of which characters are within certain limits matters of individual variation.

Eyes are present in *O. elegans* and absent in this species: this is, however, not always a satisfactory specific character (v. Ehlers, 1887, p. 80). *Onuphis holobranchiata*, Marenzeller, is also a closely allied species. This species also has eyes, the carriers of the jaws are rounded at the ends and not pointed as in *O. iridescens* and the shape of the teeth of the pseudo-compound bristles is different.

Onuphis pallida (Moore) (1911, p. 256) has the gill beginning on the 4th chaetiger, and corresponds with my incomplete specimen in which the arrangement of the gills is similar. It is probably identical with *O. iridescens*.

Genus **Leptoecia**, Chamberlin

Leptoecia antarctica, n.sp.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. Sixty specimens.

DESCRIPTION. Ten specimens and about 50 tubes with an average length of 60 mm. and a diameter of 2 mm. The tubes have stout and very resistant walls of mud, from which it is difficult to extract the animal. The ten specimens free of their tubes must have been removed from them by the collector probably while the animal was alive. Most of the tubes contain a specimen.

The largest specimen examined has 56 chaetigers and measures 33 mm. by 2 mm. including the feet. The body is slender and flattened and in spirit there are no colour markings. There are two globular palps, two ovoid anterior tentacles and five occipital tentacles with short ringed ceratophores. The inner lateral tentacles reach back to the 6th chaetiger; the median tentacle is about half their length and the outer laterals about one-third. I can find no trace of eyes. The buccal segment is longer than the prostomium and about equal in length to the following segment. It is not surpassed by the 1st foot. There are no tentacular cirri and no branchiae.

The first three chaetigers (Fig. 50, *a*) have a cirriform posterior lip to the pedal lobe and a tapering ventral cirrus, both of which decrease in size rapidly from before back-

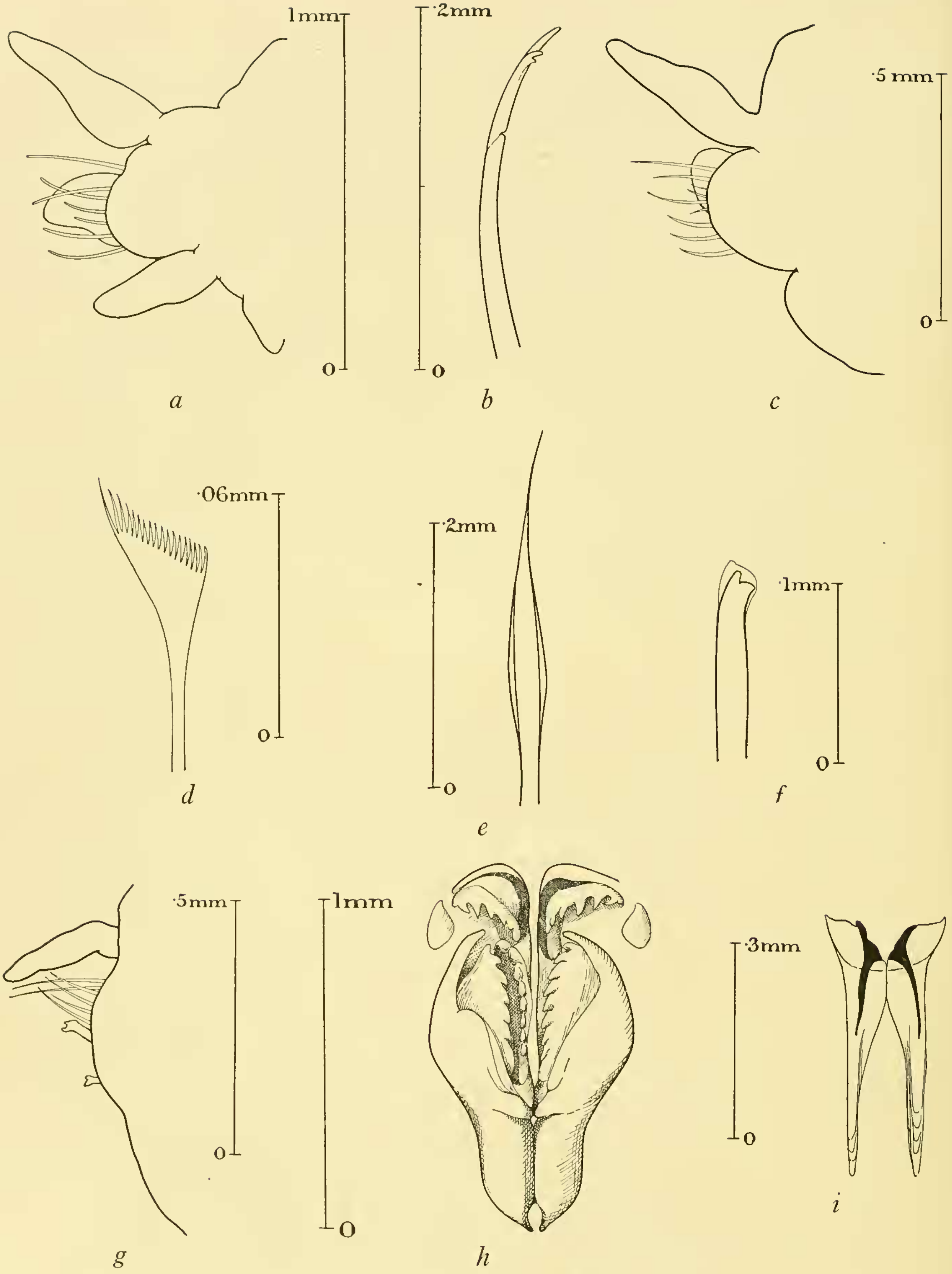

Fig. 50. *Leptoecia antarctica*.

a. First foot. *b*. Bidentate pseudo-compound bristle. *c*. Fourth foot. *d*. Comb chaeta. *e*. Capillary bristle of middle foot. *f*. Bidentate hook. *g*. Thirtieth foot. *h*. Upper jaws. *i*. Lower jaw plates.

wards. The dorsal cirrus also grows increasingly shorter till about the 7th foot, where it is a digitiform process reaching to the tips of the bristles. It retains this form throughout the rest of the body. Behind the 3rd foot the ventral cirrus is modified into a glandular pad.

The 1st foot has a few simple capillary bristles and a number of curved hooded bidentate crochets (Fig. 50, *b*) with a feeble pseudo-articulation. These are continued to the 4th chaetiger (Fig. 50, *c*) in which a single broadly bilimbate capillary bristle also occurs. The 5th foot has bilimbate capillary bristles only.

At the 10th foot there is a small dorsal group of comb chaetae (Fig. 50, *d*) with numerous short closely set teeth, a number of the usual twisted bilimbate capillaries (Fig. 50, *e*) with slender tips, and a pair of yellow hooded bidentate hooks (Fig. 50, *f* and *g*). In the posterior feet the comb chaetae seem to be absent and the capillary bristles are narrower.

The dental formula is as follows: 7—7 : 9 + 5—8 (Fig. 50, *h*). The teeth and the junction of the carriers are dark brown, but the plates are pale yellow. The under jaws (Fig. 50, *i*) are delicate translucent structures, except for a pair of dark chitinous pieces at the anterior end.

REMARKS. Chamberlin established the genus *Leptoecia* to include forms resembling *Hyalinoecia* but without gills.

The present species is near to *Leptoecia abyssorum*, Chamberlin (1919, p. 320), collected at a depth of 2005 fathoms between the Galapagos and Peru. It differs from Chamberlin's species in that the curved anterior crochets are continued to the 4th chaetiger and are feebly pseudo-compound: in *L. abyssorum* they are unjointed and confined to the 1st foot. Moreover, the number of teeth in the jaws is higher in Chamberlin's species. The only records of this genus are the present one and that of Chamberlin. It appears to be abyssal.

Sub-family *LUMBRICONEREINAE*, Grube

Genus **Lumbrinereis**, Blainville

Lumbrinereis magalhaensis, Kinberg.

Gravier, 1911, p. 78, pl. iii, figs. 35–36, with synonymy.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Eighteen specimens.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. One specimen.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. One specimen.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Two specimens.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Two specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. 34 specimens. Gear **NCS-T**. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. Four specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **N 4–T**. Bottom: green mud and stones. Four specimens. Gear **OTL**. Two specimens.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore, under Mount Duse. 17–27 m. Gear **BTS**. One specimen.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **OTL**. Bottom: green mud and sand. Twenty-five specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. One specimen.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One specimen.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 391 m. Gear **OTM**. Bottom: mud and stones. Three specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. One specimen.

St. WS 65. 22. i. 27. Undine Harbour (North), South Georgia. Shore collection, from kelp root. Two specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Twenty specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. This species is very common round South Georgia, but I have only a single record of it from the Falkland Islands. It appears to show very little variation and is distinguishable easily from *L. tetraura*, to which it has a great superficial resemblance, by the presence of only a single tooth at the apex of M. III, whereas in *L. tetraura* there is a pair of teeth at the apex of M. III. I agree with Benham's suggestion that *L. kerguelensis*, McIntosh, is identical with Kinberg's species.

Lumbrinereis africana, Augener.

Augener, 1918, p. 367, pl. vii, figs. 261 and 262, text-fig. 42.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. Four specimens.

Remarks. Four thread-like specimens measuring 1 mm. across the body and superficially very like the examples of *Drilonereis filum* with which they were associated. They are close to *L. impatiens*, Claparède. The prostomium is conical, simple crochets are present in the 1st chaetiger and the acicula are yellow. The change in the form of the simple crochets from the anterior and the posterior segments is well illustrated by Augener. The jaws are similar to those of *L. impatiens*, except that I cannot discover more than a single tooth in M. III.

Lumbrinereis coccinea, Renieri.

Fauvel, 1923, p. 432, fig. 172 *g–n*.
Crossland, 1924, p. 32.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Two specimens.

Remarks. Two small specimens measuring only 1·5 mm. across the body. The presence of a globular prostomium, compound crochets in the anterior feet, yellow acicula, and jaws that resemble Fauvel's figure *h* would seem to refer them to this species.

Lumbrinereis heteropoda, Marenzeller.

Crossland, 1924, p. 4, text-figs. 1–7, with synonymy.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Net **DL**. Bottom: stones. Three specimens.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. Two specimens.

Remarks. Five fragmentary examples of great size, the largest measuring 7 mm. across the body. This species is easily identifiable by the great elongation of the posterior lip of the foot in the hinder segments. The *L. branchiata* of Treadwell from the West Indies is an allied species, but the long and slender "carriers" of the jaws are very different from those of this species.

Lumbrinereis tetraura (Schmarda).

Ehlers, 1901, p. 137, pl. xvii, figs. 1–10.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. One specimen.

St. 57. 16. v. 26. Port William, East Falkland Island. $5\frac{1}{2}$ cables S 20° W of Sparrow Point. 15 m. Gear **BTS**. Two specimens.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Twelve specimens.

St. WS 84. 24. iii. 27. $7\frac{1}{2}$ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Two specimens.

Remarks. Both McIntosh and Ehlers have recorded this species from Simon's Town.

Lumbrinereis antarctica, n.sp.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear N 7–T. Bottom: mud. One specimen.

Description. The specimen from St. 182 is incomplete posteriorly and measures 34 mm. by 2 mm. without the feet for 80 chaetigers. The body is not tapered at the ends.

The prostomium (Fig. 51, *a*) is equal in length to the first four segments and is rather sharply pointed. On the underside the usual pair of buccal cushions is present, and the second segment appears to be prolonged to form the lower lip of the mouth, but this is not very clear in the specimen. The first segment is very slightly longer than the second.

The feet (Fig. 51, *b*, *c* and *d*) increase rather rapidly in size up to the 6th chaetiger. The anterior lip of the pedal lobe is rounded and not at all prominent, and the posterior lip in the front part of the body forms a slender digitiform process: further back it becomes gradually smaller until towards the end of the fragment it is reduced to a small papilla.

The bristles present a remarkable appearance because the lower part of their shafts is black and the upper part yellow. The feet are supported by two black acicula. As far as about the 10th foot the bristles are limbate capillaries (Fig. 51, *e*); further back a number of simple crochets (Fig. 51, *f*) with long flanges appears. Towards the hinder end of the fragment the flanges of the simple crochets become shorter. The limbate capillaries are replaced by simple capillaries.

The mandible (Fig. 51, *g*) is a light and delicate structure, the details of which are given in the figure.

Of the upper jaws (Fig. 51, *h*) M. I is a pair of simple pincers. M. II has three large teeth. M. III is a slender triangular plate with a single tooth. M. IV is a very large single-toothed triangular plate.

Remarks. This species is characterised by the very small digitiform posterior lip of the foot, by the half black, half yellow bristles and the arrangement of M. III and M. IV. It is allied to the European *L. fragilis* (O. F. Müller), but distinguished by the character of the feet and the more anterior position of the simple crochets.

Genus **Augeneria**[1], gen. nov.

Diagnosis. As *Lumbrinereis*, but with three small tentacles on the hinder edge of the prostomium and partly hidden in a crescentic groove between the prostomium and buccal segment, as in *Halla*.

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[1] This genus is named after Dr H. Augener of Hamburg, the author of many valuable contributions to our knowledge of the Polychaeta.

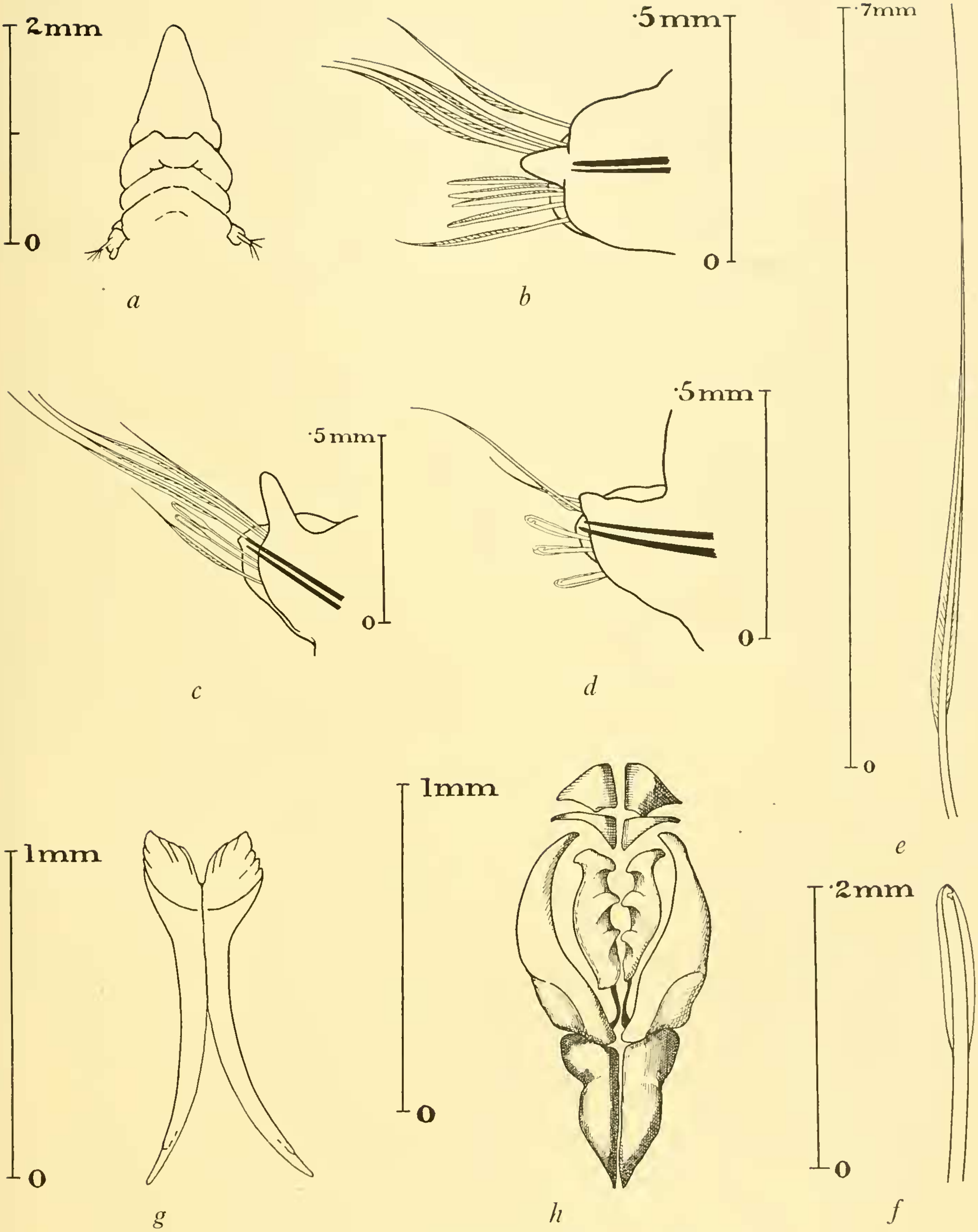

Fig. 51. *Lumbrinereis antarctica.*

a. Head from above. *b.* Tenth foot. *c.* Twenty-fifth foot. *d.* Sixtieth foot. *e.* Bordered capillary bristle. *f.* Crochet. *g.* Lower jaw plates. *h.* Upper jaws.

Augeneria tentaculata, n.sp.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. Fourteen specimens.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. One specimen.

Description. The great majority of the specimens are incomplete posteriorly. The largest complete specimen measures 135 mm. by 3 mm. without the feet and has about 110 chaetigers.

All colour has disappeared from most of the specimens, but traces of a thin transverse colour band joining the bases of the feet remain in a few. When present, this does not begin before the 6th chaetiger. The body is of the usual "*Lumbrinereis*" shape, cylindrical in front and more flattened posteriorly: it does not taper at the ends.

The prostomium (Fig. 52, *a*) is of a rounded oval form without a trace of eyes. The three small subequal tentacles situated at the hinder edge of the prostomium are sometimes almost hidden in a groove where a crescentic re-entrant is carved out of the anterior border of the first segment. In this groove the evaginable nuchal organs are also situated. On the undersurface of the prostomium (Fig. 52, *b*) is a pair of large buccal cushions. The second segment is carried forward to form the lower border of the mouth in a manner similar to that in *Lumbrinereis magalhaensis*.

The 1st segment is about half as long again as the 2nd. The first two segments are achaetous. For the first five chaetigers the feet gradually increase in length. The anterior lip of the chaetal lobe is rounded and does not project, the posterior lip forms a conical process. There are no pedal cirri nor branchiae.

The anterior feet (Fig. 52, *c*) carry compound crochets and bordered capillaries (Fig. 52, *d*). In the compound crochets (Fig. 52, *e*) the end-piece or blade is rather short, its length being less than the length of the continuation of the cutting flange below the joint. At the apex of the blade there are about four teeth above the main fang.

In the middle feet compound crochets are replaced by simple crochets (Fig. 52, *f*) with four to five teeth, and the capillaries have narrower borders and long and extremely delicate ends. In each foot the most dorsal bristle is a single giant simple crochet (Fig. 52, *g*), of the same form as, but larger than the rest of, the crochets in the foot. In the posterior feet (Fig. 52, *h*) the postchaetal lobe becomes more pointed, and the bordered capillaries are replaced by simple capillaries. About the last 20 feet have simple crochets only.

I can see no acicula.

The lower jaw (Fig. 52, *i*) is rather short, longitudinally striated, and with small calcareous end-pieces. Regarding the maxillae (Fig. 52, *k*), M. I is a pair of simple black pincers. M. II is a pair of heavy plates with three teeth. M. III has two teeth. M. IV is a pair of large subrectangular plates without any clearly defined teeth. The carriers are narrow and pointed.

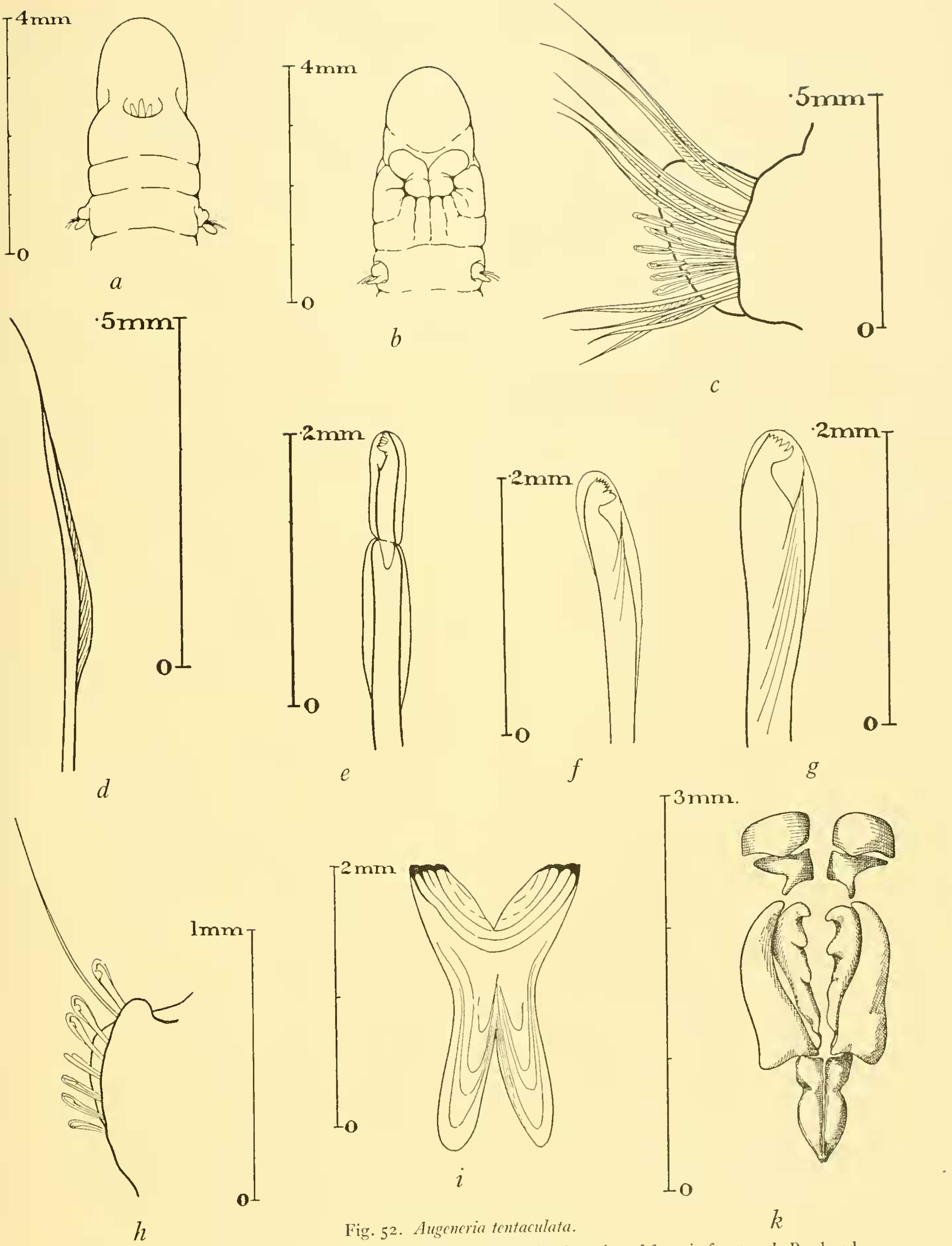

Fig. 52. *Augeneria tentaculata.*

a. Head seen from above. *b.* Head seen from below. *c.* Anterior foot viewed from in front. *d.* Bordered capillary bristle. *e.* Compound crochet. *f.* Simple crochet. *g.* Giant crochet. *h.* Posterior foot viewed from behind. *i.* Lower jaw plates. *k.* Upper jaws.

Remarks. Except for the three tentacles this form is a typical *Lumbrinereis*; but the presence of these structures places it outside the sub-family *Lumbrinereinae*, in which, however, I propose to leave it provisionally rather than create another sub-family. It may possibly be a link between the *Lysaretinae* and the *Lumbrinereinae*, but in its general characteristics it is closer to the latter family than to the former.

Genus **Arabella**, Grube

Arabella iricolor (Montagu).

Fauvel, 1923, p. 438, fig. 175 *a–h*, with synonymy.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Four specimens.

Remarks. The *Arabella lorum*, described by Ehlers (1897, p. 78) from off the Patagonian coast, is easily distinguished from *A. iricolor* by the presence of toothed plates in M. I instead of pincers with toothed bases. *A. caerulea* (Schmarda), described by Ehlers from off the coast of Chile, is near to this species, but the under jaws have a very different shape.

Genus **Drilonereis**, Claparède

Drilonereis filum (Claparède).

Fauvel, 1923, p. 436, fig. 174 *a–h*.
Drilonereis longa, Webster, Augener, 1918, p. 375.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. Four specimens.

Remarks. Crossland has described two species, *D. major* and *D. logani*, from the east coast of Africa and Suez, both of which differ from this species in the small jaw plates.

Drilonereis sp.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. Two specimens.

Description. The colour in spirit is dark red and the skin is iridescent. About the first 20 segments are pale in contrast with the rest of the body. The specimens are both incomplete and the larger measures about 400 mm. by 3 mm. without the feet. The prostomium is rather flattened, bluntly conical and without eyes. It is equal in length to the first two segments.

The feet are moderately well developed from the 1st chaetiger, but show a very gradual increase in size up to about the 25th foot. From the 1st foot they consist of a rounded anterior lobe and a longer conical posterior lobe. There is nothing diagnostic about the bristles. There are a number of curved bilimbate capillary bristles, several acicula ending in a fine capillary tip, and a large bluntly pointed ventral aciculum.

Regarding the jaws (Fig. 53), in one of the specimens they are imperfectly developed: they are of a very pale yellow colour and incompletely chitinised. In the other specimen, which I believe to be of the same species, they are fully developed. There is the usual pair of long slender black carriers. M. I is a pair of simple pincers. M. II has five teeth. M. III is small and has a large tooth with a very small and easily overlooked second tooth below it. M. IV is also small and unidentate. Behind the "carriers" is a large roughly cordiform plate which I believe to be a support of the "carrier," and not a lower jaw plate. I could discover no lower jaw plates.

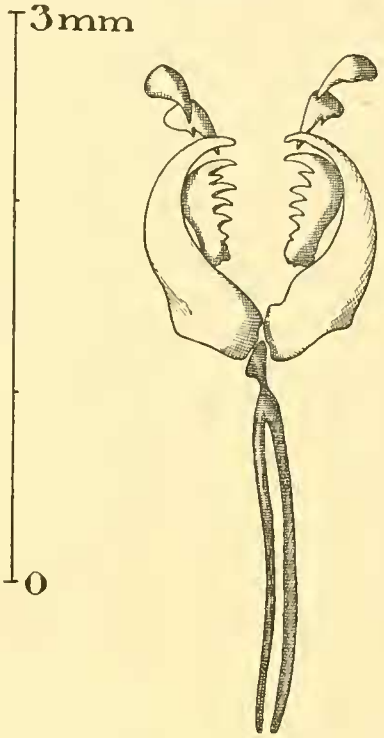

Fig. 53. *Drilonereis*, sp. Jaws.

Remarks. I cannot with certainty attribute these two specimens to any known species, and I do not, with the material at my disposal, feel justified in establishing a new species. They are very close to and perhaps conspecific with *Drilonereis pinnata*, Treadwell (1921, p. 110) from the West Indies. Treadwell's species has eyes and differs also in certain details of the jaws.

Sub-family *STAUROCEPHALINAE*, Kinberg

Genus Staurocephalus, Grube

Staurocephalus neglectus, Fauvel.

Fauvel, 1923, p. 447, fig. 179 *i–q*.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. One specimen.

Remarks. A single specimen measuring 12 mm. by 2 mm. without the feet. It corresponds exactly to Fauvel's account except that at the posterior border of the prostomium is a couple of very faint minute dots which may represent a second pair of eyes. As Fauvel points out, this species is distinguished from *S. rudolphii* only by the absence of geniculate bristles from the first two chaetigers.

This species is quite distinct from the *S. egena* (Ehlers), also from Simon's Town.

Staurocephalus rubrovittatus, Grube.

Fauvel, 1923, p. 445, fig. 177 *a–l*.
Stauronereis rubrovittata, Augener, 1918, p. 376.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

Remarks. A single colourless example of this species. It is characterised by the presence of capillary bristles only in the notopodium and by the long hair-like prolongation of the supports of a number of its jaw plates in the middle of the row.

Family ARICIIDAE, Savigny

Genus Aricia, Savigny

Aricia marginata, Ehlers.

Ehlers, 1897, p. 95, pl. vi, figs. 150–156.
Benham, 1921, p. 77.
Nainereis marginata, Fauvel, 1916, p. 445, pl. viii, figs. 26–33, with synonymy.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Seventy specimens.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore, under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Fourteen specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Nine specimens.

St. WS 62. 19. i. 27. Wilson Harbour, South Georgia. 26–83 m. Gear **BTS**. Five specimens.

St. MS ? 24 or 25. 13. iv. 25. East Cumberland Bay, South Georgia. (No further information.) Fourteen specimens.

REMARKS. I have examined a large series of examples of this species, which is common off South Georgia. The number of thoracic chaetigers varies between 11 and 14, but the greater part have 13 thoracic chaetigers.

The appearance of the gills on the 6th chaetiger is an almost constant character: in one specimen examined they begin on the 9th chaetiger. The three rows of spines in the ventral rami of the thoracic feet are also constant in my specimens. I find no capillary bristles in the ventral thoracic rami. Forked bristles are present in the abdominal region.

Aricia ohlini, Ehlers, with its 19 or 20 thoracic segments, is a very closely allied species.

Aricia michaelseni, Ehlers.

Ehlers, 1897, p. 88, pl. vi, figs. 136–140.

St. 56 ?. 16. v. 26. Sparrow Cove, Port William, East Falkland Island. 1 m. Gear **RM**. One specimen.

REMARKS. A single specimen measuring 65 mm. by 2 mm. and incomplete posteriorly. There are 22 thoracic segments and the gills begin on the 6th chaetiger. Ehlers gives 17 to 19 thoracic segments and the 5th for the gills. There are about 12 papillae on a mid-thoracic foot. The ventral papillae begin on the 14th chaetiger and continue to the 23rd. The rows are single and contain a maximum of about 15 papillae. At the 14th chaetiger a great change comes over the thoracic neuropodia (Fig. 54). Four or five spear-headed chaetae appear, arranged in a transverse row,

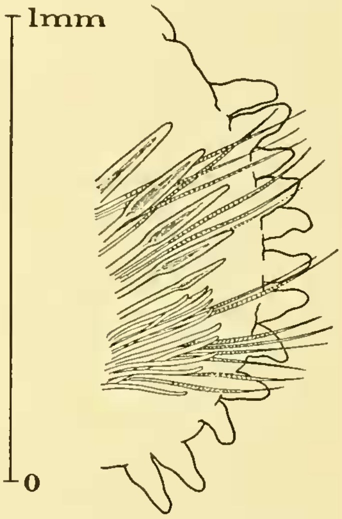

Fig. 54. *Aricia michaelseni*. Fifteenth thoracic foot.

and the thoracic crochets are confined to the ventral part of the ramus. The arrangement is well shown in Ehlers' fig. 137, except that he does not indicate the ordinary crochets at the base of the ramus and, moreover, in my specimens there is no single spear-headed bristle projecting clear of the body at the dorsal apex of the ramus.

The abdominal region has an intermediate cirrus and two acicula in the dorsal ramus and one in the ventral. Forked bristles are present.

I believe the arrangement of the spear-headed bristles to be characteristic of this species.

Genus **Nainereis**, Blainville

Nainereis hexaphyllum (Schmarda).

Theodisca (*Anthostoma*) *hexaphyllum*, McIntosh, 1905, p. 63, pl. v, figs. 27–29.
Scoloplos (*Naidonereis*) *hexaphyllum*, Augener, 1918, p. 421, pl. vi, figs. 153–154; pl. vii, fig. 260, text-fig. 59.

Saldanha Bay, South Africa, 1926. Beach Collection. Two specimens.

REMARKS. Two young specimens, the largest measuring 11 mm. by 2 mm.

Genus **Scoloplos**, Oersted

Scoloplos mawsoni, Benham.

Benham, 1921, p. 78, pl. ix, figs. 91–94.
Scoloplos kerguelensis, Gravier, 1911, p. 108, pl. v, figs. 60–63.
Non-*Scoloplos kerguelensis*, McIntosh, 1885, p. 355, pl. xxii A, fig. 19, pl. xliii, figs. 6–8.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. Eight specimens.

St. WS 32. 21. xii. 26. Mouth of Drygalski Fiord, South Georgia. 225 m. Gear **BTS**. Bottom: grey mud. Three specimens.

REMARKS. The average size is about 20 mm. by ·5 mm. These specimens agree with the accounts given by Gravier and Benham. In the posterior segments there are filiform cirri as in *S. armiger*.

Benham, who has had a very large number of specimens for examination, claims that this form is separate from the *S. kerguelensis* of McIntosh, Fauvel and others. I have not sufficient material to form an opinion of my own. Fauvel has recently (1927, p. 21) made *S. kerguelensis*, McIntosh, a synonym of *S. armiger*. If Benham and Fauvel are both right, there are two Antarctic species of *Scoloplos* known, *S. mawsoni* and *S. armiger*.

Scoloplos armiger (O. F. Müller).

Fauvel, 1927, p. 20, fig. 6 *k–q*.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. One specimen.

Family SPIONIDAE

Genus **Pygospio**, Claparède

Pygospio dubia, n.sp.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. About fifty specimens.

Description. The average size is about 10 mm. by 1 mm. at the widest part. The body is tapered at both ends, the widest part being at about the 7th chaetiger. All colour has disappeared in spirit. The prostomium (Fig. 55, *a*) is subtriangular. In front it is very slightly indented in the middle, and the corners are prolonged into small rounded eminences: there are no frontal horns. It is continued back to the edge of the 2nd chaetiger and ends in a minute occipital tentacle. There is a pair of very long grooved palps, in some examples more than half the length of the body. I can see no trace of eyes.

In the anterior segments the lamellae are semi-oval and equally developed. The 1st chaetiger has fully developed dorsal and ventral rami but no gill. On the 2nd and 3rd chaetigers (Fig. 55, *b*) there is a finger-shaped gill quite separate from the dorsal lamella. The 4th and 5th chaetigers (Fig. 55, *c*) have no gill, but from the 7th to the 13th chaetiger (Fig. 55, *d*) there are gills more than twice the size of those of the 2nd and 3rd chaetigers and fused with the dorsal lamellae, except at the tip which is free.

In the posterior segments (Fig. 55, *e*) the lamellae are equally developed, the dorsal being broadly lanceolate and the ventral more papilliform. They are both small. There are capillary bristles (Fig. 55, *f*) bordered very slightly, if at all, in the dorsal and ventral rami. Between the 17th and 20th chaetigers, hooks (Fig. 55, *g*) appear in the ventral rami. These seem to be perfectly plain hooks lacking both a second tooth and a hood.

The pygidium is very puzzling. In some examples, apparently complete posteriorly, the body tapers simply to a point with an anus without anal cirri (Fig. 55, *h*); and in others there is a distinct pygidial sucker consisting of two vertical valves, which under the microscope have the appearance of oyster shells (Fig. 55, *i*). There are no neuropodial glandular pockets and I can discover no sexual pouches. The state of preservation was inadequate for an examination of the dorsal organs.

Remarks. This is a young form. The presence of an occipital tentacle, or at any rate a minute process at the base of the tapered prostomium, of an anal sucker, of hooks in the ventral rami only, of gills beginning on the 2nd chaetiger and continuing fused with the dorsal lamellae from the 6th to the 13th chaetiger only, and the absence of frontal cornua and a modified 5th chaetiger place this form nearer to *Pygospio* than to any other genus. Moreover, the interrupted arrangement of the gills recalls that in the male of *P. elegans*.

My specimens are immature, and as far as I can discover they show no sexual dimorphism. They may, however, be the young of a *Polydora* in which the 5th chaetiger is not yet modified.

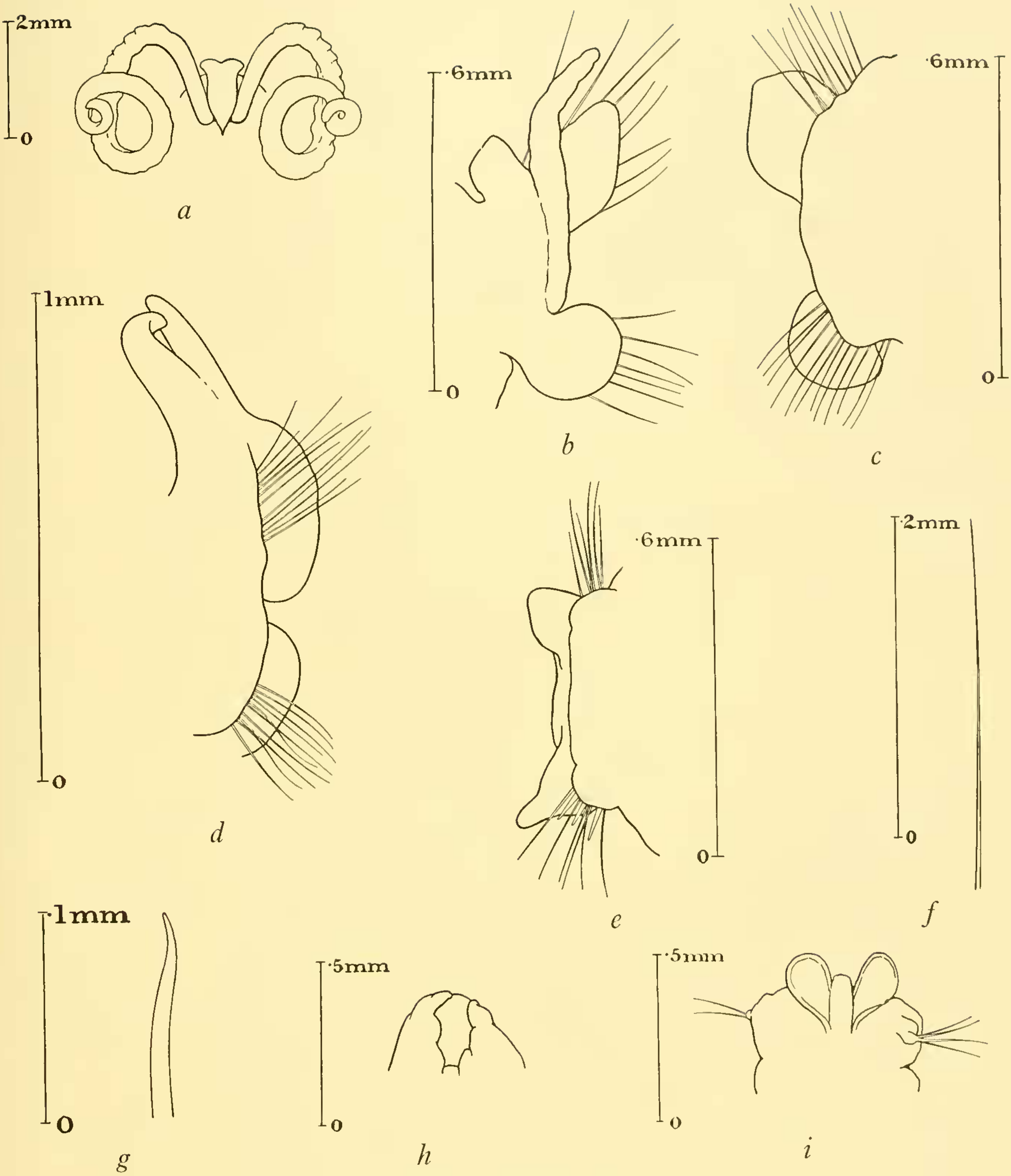

Fig. 55. *Pygospio dubia.*

a. Head. *b.* Third foot. *c.* Fifth foot. *d.* Tenth foot. *e.* Posterior foot. *f.* Capillary bristle. *g.* Ventral hook. *h.* Pygidium without anal sucker. Ventral view. *i.* Pygidium with anal sucker. Dorsal view.

Genus **Nerine**, Johnston (sensu Mesnil)

Nerine sp.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Two specimens.

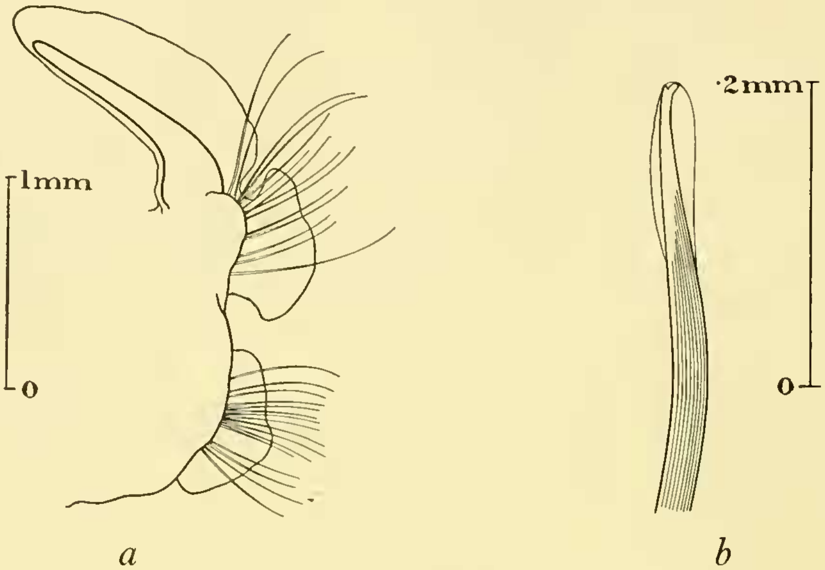

Fig. 56. *Nerine*, sp.

a. Anterior foot. *b*. Bidentate hook.

Description. Two rather ill-preserved anterior fragments, the largest of which has 24 chaetigers and measures 15 mm. by 3 mm. The body is stout and massive and the gills give it a foliaceous appearance.

The prostomium is an elongated plate rounded in front and ending behind in a small knob, which I take to represent an occipital tentacle. The palps are lost, and there are no eyes. The hinder end of the prostomium reaches to the middle of the 1st chaetiger. The 1st chaetiger has an oval dorsal lamella, a rounded ventral lamella and capillary bristles in both rami. The gills begin on the 2nd chaetiger and are continued to the ends of the fragments. They are large and fused with an upward extension of the dorsal lamella (Fig. 56, *a*). The ventral lamella is vertically elongated and with a rounded edge. Both dorsal and ventral bristles are capillary until the 21st chaetiger, where, in addition to the capillary bristles, a row of 15 bidentate hooded hooks (Fig. 56, *b*) appears in the ventral ramus.

Remarks. These fragments probably belong to *Nerine*, but the few anterior segments of which they consist do not show any hooks in the dorsal rami. The closely allied *Nerinides* has no capillary bristles in the dorsal ramus of the 1st chaetiger, as well as no hooks in the dorsal ramus. I know no *Nerine* in which the ventral hooks appear as early as the 21st chaetiger, and I have found no previous record of a *Nerine* from Antarctic waters.

Genus **Prionospio**, Malmgren

Prionospio africana, Augener.

Augener, 1918, p. 402, pl. vi, figs. 162 and 163, text-fig. 51.
? *Prionospio*, sp., Söderström, 1920, p. 238, figs. 137, 148 and 149.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear OTL. Bottom: mud and fine sand. One specimen.

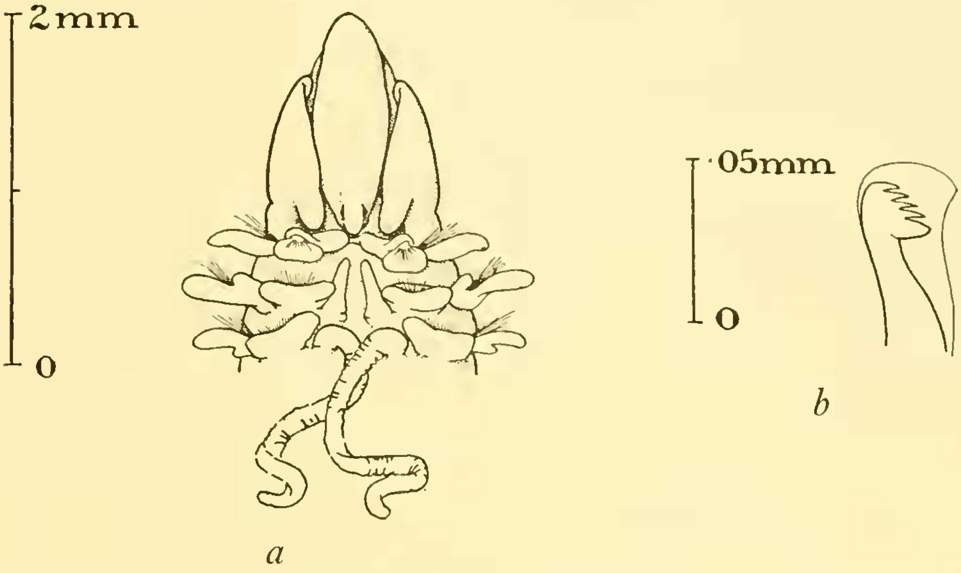

Fig. 57. *Prionospio africana*.
a. Anterior end. Dorsal view. *b*. Hook.

Description. One specimen measuring 24 mm. by 1·5 mm. It has 37 chaetigers and is incomplete posteriorly. The colour in spirit is a pale reddish brown. The prostomium is fusiform with rounded ends (Fig. 57, *a*). The palps are missing. On the posterior end of the prostomium is a pair of faint longitudinal parallel markings which I take to be eye pigment.

The buccal segment on its lateral and ventral surfaces sends forward a large collar, open on the dorsal surface, which extends for about two-thirds the length of the prostomium. The appearance from the side is similar to that of Söderström's (*loc. cit.*) fig. 137. Behind the prostomium the notopodium of the 1st chaetiger sends out two processes which meet in the mid-dorsal line.

The 1st chaetiger has a triangular cirrus, dorsal and ventral bristle bundles and a rounded ventral cirrus. The foot, however, is a little smaller than the following feet. There is no gill on the 1st chaetiger. The 2nd chaetiger has small gills slightly longer than the large dorsal cirrus and unfeathered. The 3rd chaetiger has large feathered gills equal in length to the following five segments. The 4th chaetiger has no gills. There are therefore on this specimen two pairs of gills only.

Söderström's fig. 149 is an accurate diagram of the relative sizes of the dorsal cirri, except that the 1st dorsal cirrus is considerably larger relatively to the 2nd, the relation being similar to that shown in his fig. 137.

Both rami of the feet carry very thick bundles of capillary bristles. The hooks (Fig. 57, *b*) begin on the 9th chaetiger in the ventral ramus, and there is also at its lowest point a sabre-shaped bristle which is usually broken. The dorsal ramus of the last foot of the present fragmentary specimen shows no hooks.

REMARKS. *P. pinnata*, Ehlers, *P. africana*, Augener, and *P. sexoculata*, Augener, are all distinguished by the collar round the prostomium and the presence of a gill on the 1st chaetiger. Caullery (1914) has suggested a sub-genus *Paraprionospio* for those forms in which the first pair of parapodia is similar to those following and carries a gill.

Söderström contends, I think justly, that in these forms the 1st chaetiger is morphologically the equivalent of the 2nd chaetiger in *Prionospio sensu stricto*. The bristles of the 1st chaetiger have disappeared and the feet are modified to form the collar. The two processes meeting in the middle line behind the head, as already described, may possibly represent part of the modified 1st chaetiger. If this is so, in the present specimen the gills do not begin before the 3rd true chaetiger. But the gills from the first bristle-bearing segment (2nd chaetiger) may have been lost.

The *Prionospio* sp. of Söderström (*loc. cit.*) is very close to this species, if not identical with it. Söderström, however, writes, "Ventral cirrus, notopodium and neuropodium of the first bristle segment degenerate; dorsal cirrus not distinguishable." This is not shown in his fig. 137 and differs from the condition in *P. africana*.

In spite of the differences in the number and arrangement of the gills between the present specimen and Augener's original examples I think it probably belongs to Augener's species.

Augener records three pairs of gills all of about the same size, the first pair occurring on the 1st chaetiger.

Family PARAONIDAE, Cerruti

Genus **Paraonis**, Grube

Paraonis (Paraonides) gracilis (Tauber).

Levinsenia gracilis, Mesnil and Caullery, 1898, p. 136.
Levinsenia gracilis, Cerruti, 1909, p. 468.
? *Paraonis dubia*, Augener, 1924, p. 72, fig. 25.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. Ten specimens.

REMARKS. Ten examples of this rare family, that are rather doubtfully conspecific with the specimens originally described by Tauber from Denmark. They are rolled into tight coils, which makes accurate measurement impossible. The size is about 20 mm. by ·5 mm. for 80–100 chaetigers. There are no colour markings. The prostomium, when seen from above, is triangular in outline and ends in a sharp point, which I take to represent the terminal tentacle mentioned by Mesnil and Caullery. There is only a single achaetous segment, the buccal segment, behind the prostomium (Fig. 58, *a*).

I can find no dorsal cirrus on the 1st chaetiger and the upper and lower bristle bundles issue directly from the body wall without any parapodial lobes. In the 2nd and following chaetigers there is a small papilliform dorsal cirrus. Mesnil and Caullery state that the first three chaetigers are clearly smaller than those that follow. My specimens do not show this.

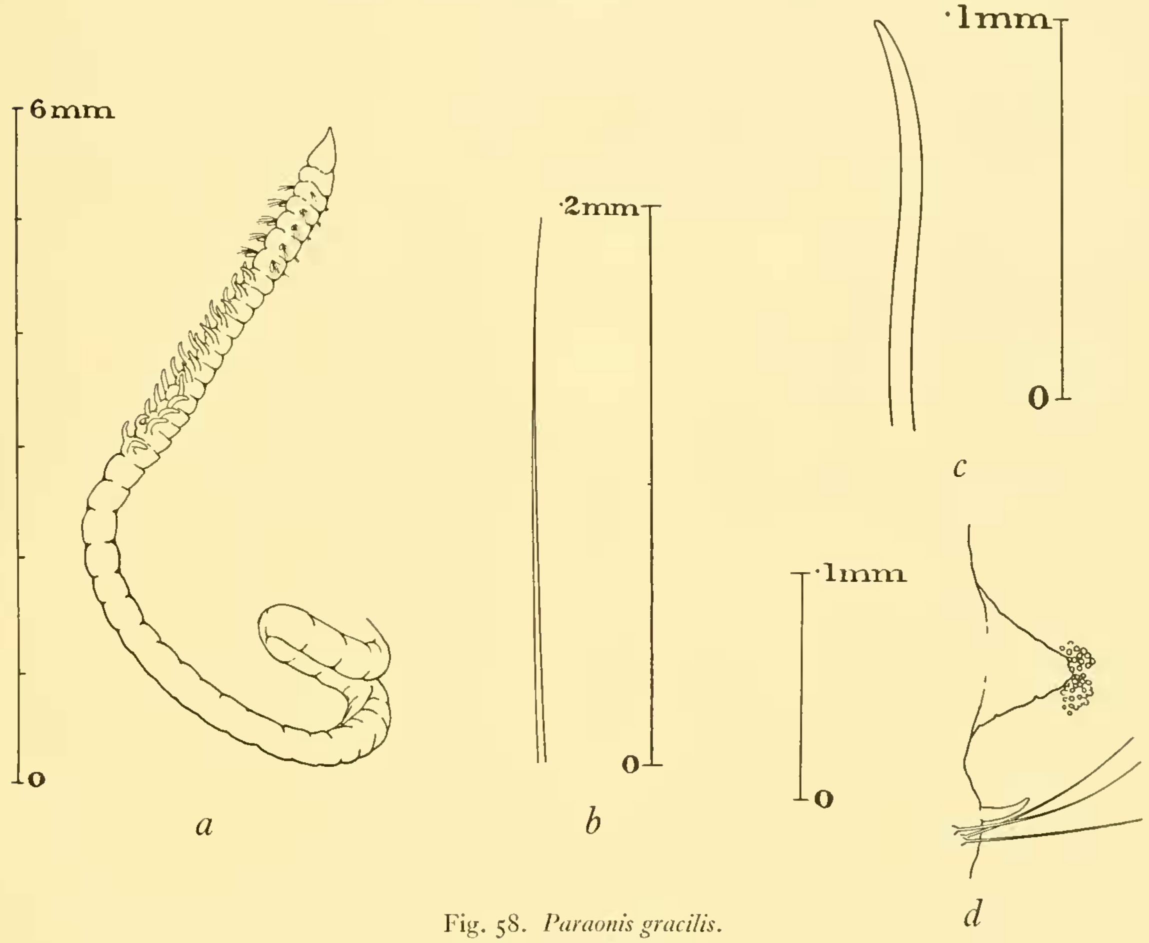

Fig. 58. *Paraonis gracilis*.

a. Anterior end. (The feet are not shown behind the 5th chaetiger.) *b*. Capillary bristle. *c*. Hook. *d*. Dorsal view of foot and genital papilla.

The gills begin on the 6th–7th chaetiger and continue to the 18th–20th chaetiger. They are simple strap-like structures, arching over the back. The gill-bearing region of the body is flattened dorsally and rounded ventrally and the limits of the segments are clearly marked. Behind this region the body is cylindrical and the limits of the segments are almost impossible to distinguish. From the distance apart of the chaetal bundles it can be seen that the segments are about twice as long as in the anterior region. The posterior region of the body looks much more like a fragment of some microdrilid Oligochaete, such as *Nais*, than part of a Polychaete.

In the anterior region the bristles of both bundles are similar; they are very delicate, unbordered capillaries (Fig. 58, *b*) and in the preparations the ends are often twisted. Between the 20th and 25th feet a shorter and much stouter hook (Fig. 58, *c*) appears in the ventral bristle bundle: these hooks increase in number posteriorly; until towards the end of the body they are about six in number with a few capillaries amongst them.

In the hinder region I can see no dorsal cirrus, and the notopodium is represented by a few fine capillary bristles. The specimens are too imperfect to make out a pygidium.

Mesnil and Caullery write "Du 30e au 40e sétigère, il existe un mamelon transversal très net en avant des soies." I take this to refer to the genital papillae (Fig. 58, *d*) which, from about the 30th to the 60th chaetiger, lie a little below and in front of the feet.

REMARKS. These specimens agree in the main with Mesnil's account of Tauber's species, but more material both from the north and the south is required before the identity of the forms from the two hemispheres can be established with certainty.

Family CHAETOPTERIDAE

Chaetopterus variopedatus (Renier).

Fauvel, 1927, p. 77, fig. 26 *a–n*.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Three specimens and three large tubes.

St. 222. 23. iv. 27. St Martin's Cove, Hermite Island, Cape Horn. 30–35 m. Gear **NRL**. One specimen.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Bottom: sand. Eight specimens.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. One specimen.

St. WS 128. 10. vi. 27. West side of Gough Island, inshore. 40° 19′ 00″ S, 10° 04′ 00″ W. 120–90 m. Gear **DLH**. Several fragments of tubes.

REMARKS. The greater part of these specimens consists of fragments only. Port Stanley, East Falkland Island, however, yielded two intact specimens, the largest of which has 10 thoracic chaetigers, 5 median chaetigers and 28 posterior chaetigers. In all the specimens in which it is possible to make a count, there are 9 to 10 thoracic and 5 middle chaetigers. I cannot accept Augener's suggestion (1918, p. 458) that the *Ch. variopedatus*, Ehlers, from Southern America should be regarded as a distinct species, *Ch. antarcticus*, Kinberg.

Genus **Phyllochaetopterus**, Grube
(Claparède char. emend.)

Phyllochaetopterus socialis, Claparède.

Fauvel, 1927, p. 84, fig. 30 *a–e*; and 1916, p. 451, pl. ix, figs. 44–47, text-fig. 1, with synonymy.

St. 272. 30. vii. 27. Off Elephant Bay, Angola. From 13° 11′ 00″ S, 12° 44′ 45″ E to 13° 09′ 45″ S, 12° 46′ 00″ E. 73–91 m. Gear **OTL**. Bottom: green mud and sand. Numerous specimens.

Remarks. A large cluster of intertangled, indistinctly annulated tubes from which I extracted a number of small examples of this species. The average size is about 15 mm. by 1 mm. They are typical specimens of this species with red bands on the palps, 13 to 14 thoracic chaetigers and 7 to 8 median chaetigers.

Phyllochaetopterus, sp.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. Three fragmentary tubes.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Bottom: green mud. Gear **OTL**. Ten tubes and three fragmentary specimens. Gear **N 4–T**. Two fragmentary specimens.

Description. The tubes are large, separate, indistinctly annulated and probably incomplete. The largest measures 22 mm. in length by 4 mm. in diameter. The badly preserved fragments do not permit of a complete account of the systematic characters of this form. The anterior thoracic region has nine chaetigers and measures 12 mm. by 5 mm. The thoracic region is a pale yellowish green and the middle and posterior regions are dark green, the posterior being darker than the middle region.

The anterior end is damaged: there is a pair of large globular tentacles supported internally by a number of fine bristles. A large white glandular cushion extends on the under side from the 6th to the 8th chaetiger.

The lanceolate bristles of the thoracic region are similar to those found in *P. socialis*. The giant bristle from the 4th chaetiger is obliquely truncated, slightly excavated at the end and with a finely crenellated apex. It is similar to that figured by Fauvel (1927, fig. 31 *b*) for *P. major*.

The notopodia of the median region are bilobed with a large accessory lamella (? branchia) lying between notopodium and neuropodium. There are two long median segments and possibly more, for the only fragments showing the median region are badly damaged. The 2nd median chaetiger is bilobed and similar to the 1st. I cannot tell whether the median neuropodia are bilobed or unilobed.

The posterior region has numerous segments. Except towards the end of the body the notopodia are free towards their ends only, a condition similar to that found in *Mesochaetopterus*. The terminal segments, however, have projecting notopodia. Each notopodium has four to six lanceolate bristles. The posterior neuropodia are bilobed with rows of subtriangular uncini with very numerous fine teeth.

Remarks. This is the first record of a Chaetopterid from Antarctic waters except for *P. pictus*, Crossland (= *P. socialis*, Claparède, *fide* Fauvel) recorded by Augener from the sub-Antarctic Auckland Islands: unfortunately the condition is so unsatisfactory that I cannot assign it to a species. It seems to be close to *P. major*, Claparède, but that species is described as having only a single lanceolate bristle in the posterior notopodia.

Family CIRRATULIDAE

Genus **Audouinia**, Quatrefages sensu Fauvel

Audouinia filigera (Delle Chiaje) var. **capensis** (Schmarda).

Cirratulus capensis, Schmarda, 1861, p. 56, pl. xxvii, fig. 213.
Cirratulus capensis, auctorum.
Cirratulus cirratus (O. F. Müller), McIntosh, 1904, p. 67.
Non *Cirratulus cirratus* (O. F. Müller).

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Eleven specimens.

Remarks. This form seems to be identical with *A. filigera* (Delle Chiaje) except that the tentacles are on the 3rd and 4th chaetigers instead of the 4th and 5th or 5th and 6th. Fauvel, in his account of *A. filigera* (1927, p. 92), states that the gills are above the dorsal ramus at a distance equal to or greater than that which separates the two rami. This is true only from about the 40th chaetiger: in front of the 40th chaetiger the distance between the gill and the dorsal ramus is less than that which separates the two rami.

Genus **Cirratulus**, Lamarck

Cirratulus cirratus (O. F. Müller).

Fauvel, 1927, p. 94, fig. 33 *a–g*, with synonymy; and 1916, p. 447, pl. viii, fig. 12.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Seven specimens.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Five specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. Nine specimens.

St. WS 62. 19. i. 27. Wilson Harbour, South Georgia. 15–45 m. Gear **BTS**. Three specimens.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. One specimen.

St. MS 6. 12. ii. 25. East Cumberland Bay, South Georgia. ¼ mile S of Hope Point to 1¼ cables S × E of King Edward Point Light. 24–30 m. Gear **BTS**. Nine specimens.

St. MS 66. 28. ii. 26. East Cumberland Bay, South Georgia. $2\frac{1}{4}$ miles SE of King Edward Point Light to $1\frac{1}{2}$ cables W × N of Macmahon Rock. 18 m. Gear **NCS–T**. ? One specimen, young.

St. MS ?. South Georgia. Shore collection. One specimen.

Remarks. The specimen from the South Georgia shore collection is a uniform deep purple in colour. The specimen from WS 97 has the two groups of tentacular filaments very forward in position, so that they appear to be on the last achaetous segment rather than on the 1st chaetiger.

Cirratulus antarcticus, n.sp.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. Ten specimens.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **N 4–T**. Bottom: grey mud. Five specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **NCS–T**. Bottom: grey mud. Four specimens. Gear **OTL**. Three specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Two specimens.

Description. The largest complete specimen measures 26 mm. by 2 mm. The body is long and rather slender with very crowded segments. The prostomium is rather short and bluntly conical; it has no eyes; the two achaetous segments behind the buccal segment are not clearly distinguished. The first two chaetigers have no branchiae. These begin on the 3rd chaetiger and are continued over the greater part of the body. Throughout they arise just above the dorsal ramus. On the 3rd to 5th chaetigers there are two groups of tentacular filaments, with six to eight filaments in each group (Fig. 59). They are rather stouter than the branchiae. The feet carry capillary bristles only: there are no hooks. The pygidium is conical and the anus is pointing upwards.

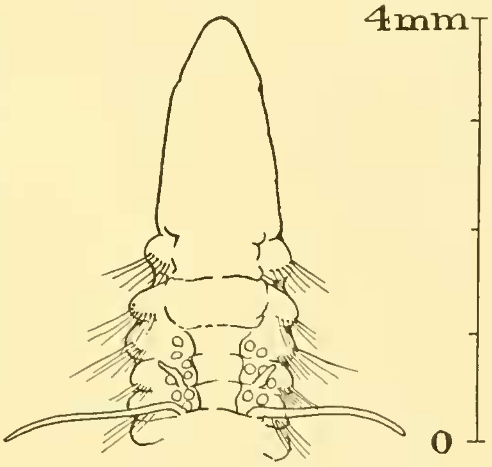

Fig. 59. *Cirratulus antarcticus.* Anterior end.

Remarks. This species is allied to *C. chrysoderma*, Claparède, from the Mediterranean. The body, however, is more massive and there are six to eight pairs of tentacular filaments instead of two to three. Moreover, in *C. chrysoderma* the anus is ventral, and the tentacular filaments are on the 4th–5th chaetigers.

Cirratulus afer, Ehlers.

Ehlers, 1908, p. 127, pl. xvii, figs. 10–12.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear OTL. Bottom: mud and fine sand. Two specimens.

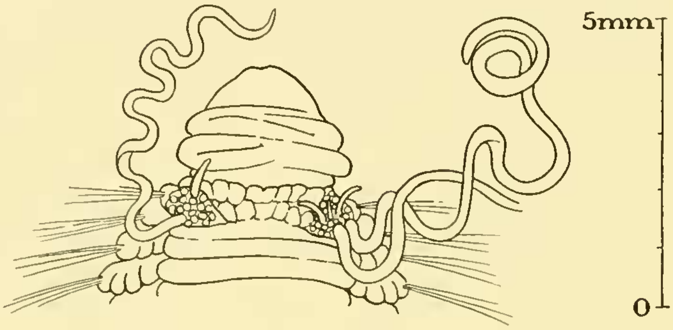

Fig. 60. *Cirratulus afer*. Anterior end.

REMARKS. I have much hesitation in referring these forms to Ehlers' species. One of the specimens is complete and measures 83 mm. by 11 mm. for 150 chaetigers. This specimen is much larger than those seen by Ehlers. The general proportions of the body are similar to those described by Ehlers. The prostomium is very short and as if telescoped into the buccal segment. The two tentacular groups, each of 10 to 12 filaments, are on the 1st chaetiger and apparently spread over a considerable area of the last achaetous segment (Fig. 60). According to Ehlers there is a single filament on the 1st chaetiger and a group of filaments on the 2nd. Moreover, I can find no trace of hooks in my specimens. In Ehlers' specimens their occurrence seems to be very irregular, or they may be absent. The gills seem to be continued over the greater part of the body, and their insertion is just above the dorsal ramus.

Genus **Dodecaceria**, Oersted

Dodecaceria concharum, Oersted.

Fauvel, 1927, p. 102, fig. 36 *a–n*.

St. 2. 17. xi. 25. Clarence Bay, Ascension Island, Catherine's Point and Collyer Point. Shore collection. One specimen.

REMARKS. A single atocous sedentary ripe female with five pairs of gills.

Genus **Heterocirrus**, Grube

(Saint-Joseph char. emend.)

Heterocirrus caput-esocis, Saint-Joseph, var. **capensis** var. nov.

Heterocirrus caput-esocis, Fauvel, 1927, p. 97, fig. 33 *l–m*.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear NH. Six specimens.

Description. The average measurement is about 20 mm. by 2 mm. at the widest part: there are 80–90 chaetigers. The body is tapered at both ends, suddenly at the anterior end and gradually at the posterior. It is at its broadest from the 10th to the 40th chaetiger. In spirit all pigment has disappeared. The prostomium (Fig. 61) is shorter and blunter than that figured for *H. caput-esocis* (Fauvel, *loc. cit.* fig. *l*). Instead of a pair of round eye spots, there is a row of small eye spots interrupted in the middle line as in *Cirratulus cirratus*.

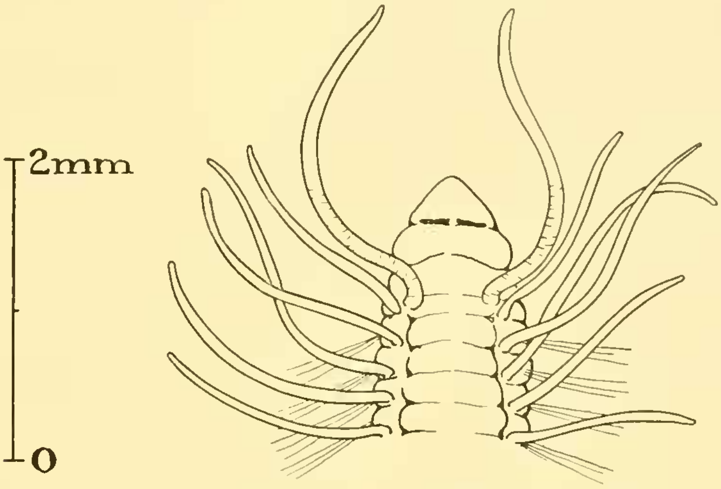

Fig. 61. *Heterocirrus caput-esocis*, var. *capensis*. Anterior end.

The buccal and the following achaetous segments are not clearly distinguished. Just in front of the 1st chaetiger is a pair of long coiled palps, and a little behind and below these a pair of gills. Most of the gills are lost, and I can find none behind the 15th chaetiger; further back they are either absent or broken off.

There are dorsal and ventral capillary bristles in all the feet, and from about the 15th neuropodium and 20th notopodium there are also simple unidentate hooks. I can see no ventral folds round the anus.

Remarks. This form is close to *H. caput-esocis*, but differs from it in the shape of the head and eyes, and in the presence of notopodial hooks behind the 20th chaetiger instead of in the terminal feet only.

Genus **Tharyx**, Webster and Benedict

Tharyx epitoca, n.sp.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen. Gear **N 4–T**. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH**. Bottom: stones, mud and rock. One specimen.

Description. Two epitocous females, swollen with eggs. The largest measures 27 mm. by 3 mm. at the widest part, for about 50 chaetigers. The body is fusiform, and about the last 20 chaetigers are free from eggs. The prostomium is bluntly conical and without eyes. The buccal and the two (?) following segments are long, achaetous and indistinctly separated. As in *Heterocirrus* (see Fauvel, 1927, p. 96), on the last achaetous segment or on the anterior border of the 1st chaetiger there is a pair of gills and a pair of coiled palps (Fig. 62) which are about equal in length to the first ten chaetigers. The gills are for the most part lost, but it can be seen that they are continued for at least the anterior two-thirds of the body. They are very long, a gill from the middle of the body being equal in length to about 15 chaetigers in the middle of the body. After the 30th chaetiger the body is no longer swollen with eggs, and the segments are half the length of those in the sexual region.

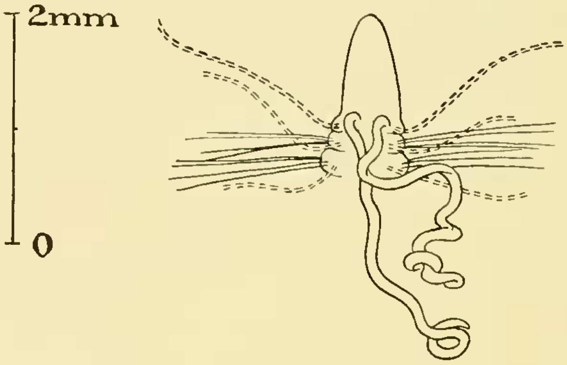

Fig. 62. *Tharyx epitoca.* Anterior end. (Position of the gills indicated by the broken lines.)

The bristles consist of very long fine capillary chaetae, in length about equal to twice the breadth of the body. There are no hooks.

The pygidium is conical and the anus terminal.

Remarks. The position of the first gill and palp would seem to refer this form to *Heterocirrus*, Grube; on the other hand, the absence of crochets in the feet is characteristic of *Tharyx*. This species is very close to, and possibly identical with, *Heterocirrus cincinnatus*, Ehlers (1908, p. 129) from 48° 57′ S, 70° W. The differences are these: Ehlers' type specimen measured 18 mm. by 1·5 mm. for 110 segments; Ehlers states that towards the posterior end of the body the segments are longer than in the middle; Ehlers describes a pair of gills only on the last achaetous segment and places the palps on the 1st chaetiger. My specimen measures 27 mm. by 3 mm. for 50 chaetigers; towards the posterior end the segments are much shorter than in the middle of the body and both 1st gill and palp are on the same segment. The examples from Auckland Island referred to Ehlers' species by Augener (1924, p. 81) have hooks, and are therefore wrongly attributed.

South Georgia (St. 29. 16. iii. 26. West Cumberland Bay, South Georgia; 5·9 miles S 51° W of Jason Light, 23 m. Gear DC. Bottom: mud and stones) yielded another epitocous female, with all its gills and palps broken or lost. As far as can be seen, the arrangement of the palps and gills is the same as in *Th. epitoca*; on the other hand, the body is much more slender and thread-like and the segments more numerous. The measurements are 30 mm. by ·5 mm. for about 120 chaetigers. The bristles are all capillary. It may be conspecific with my specimen from Bismarck Strait.

Tharyx sp. juv.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Four specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NCS–N**. Eight specimens.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **NCS–T**. Three specimens.

Remarks. I have given this name to a number of small immature Cirratulids, all more or less in poor condition. The average measurement is about 5 mm. by 1 mm. for 30–50 chaetigers. There is a pair of gills and palps on the 1st chaetiger and the gills are continued over the greater part of the body. There are no eyes and no hooks in the bristle bundles. They may be young examples of *Th. epitoca*.

Family FLABELLIGERIDAE, Saint-Joseph

Genus **Stylarioides**, Delle Chiaje

Stylarioides kerguelarum (Grube).

Trophonia kerguelarum, McIntosh, 1885, p. 364, pl. xliv, figs. 9–10; pl. xxxii A, figs. 4–6.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Six specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Sixty-five specimens.

Remarks. An average specimen measures about 18 mm. by 3 mm. without the bristles, and has about 30 chaetigers. This species is close to *St. plumosa* (O. F. Müller); it differs, however, in that the sigmoid ventral crochets begin on the 3rd instead of the 4th chaetiger.

Stylarioides swakopianus, Augener.

Augener, 1918, p. 433, pl. vii, fig. 234, text-figs. 61 and 62.
Stylarioides xanthotricha, Ehlers, *partim*, 1908, p. 119, pl. xvi, fig. 2.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. Four specimens.

Remarks. Of these specimens all except one are fragments: the complete specimen measures 33 mm., without the tail, by 4 mm.; the tail measures 6 mm. There is no need for me to recapitulate Augener's arguments for separating this, the shaggy-skinned form, from *St. xanthotricha*. I am still rather doubtful if the two forms are specifically distinct; and both are very close indeed to the European *St. monilifer*.

Except in the matter of the difference in the number of bristles forming the cage, a difference to which I am inclined to attach little systematic value, the differences between *St. swakopianus* and *St. xanthotricha* are similar to the differences between *St. monilifer* and *St. hirsutus*. According to Fauvel (1927, p. 119) all the intermediate stages between the latter pair of species are found.

Genus Flabelligera, M. Sars

Flabelligera affinis, M. Sars.

Fauvel, 1927, p. 113, fig. 40 *a–f*; 1916, p. 450, with synonymies.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. One specimen.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Two specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **N 7–T**. Bottom: green mud and stones. Two specimens.

St. WS 77. 12. iii. 27. 51° 01′ 00″ S, 66° 31′ 30″ W. From 51° 00′ 00″ S, 66° 30′ 00″ W to 51° 02′ 00″ S, 66° 33′ 00″ W. 110–113 m. Gear **OTC**. ?. South Georgia. One specimen. Bottom: coarse dark sand. Two specimens.

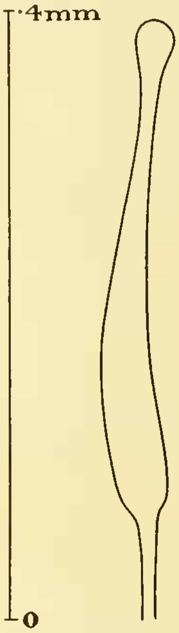

Fig. 63. *Flabelligera affinis*. Elongated papilla.

REMARKS. These specimens are mostly in bad condition. I can find nothing to distinguish them from the northern form. Fauvel (1927, *loc. cit.*) writes: "A partir du 25ᵉ sétigère une ou deux grosses soies composées ou pseudocomposées, etc." Surely 25ᵉ is a printer's error for 2ᵉ? I figure a papilla of the elongated kind (Fig. 63).

Flabelligera luctator, Stimpson.

Augener, 1918, p. 452.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. Two specimens.

REMARKS. The largest specimen measures 25 mm. by 5 mm. including the mucous sheath for 32 chaetigers. The mucous sheath is so thick that the ends of the bristles are embedded in it. There is only a single hook with a strongly curved blade in each neuropodium. The more elongated type of papilla (Fig. 64) has a different form from that usually found in *Fl. affinis*.

Willey and Fauvel (1916, p. 451) both regard this species as identical with *Fl. affinis*. In all the examples of the latter species that I have seen the shape of the papillae is very constant. Therefore, in view of the difference in the papillae already mentioned, I hesitate to unite the two species. I can find no other distinguishing character.

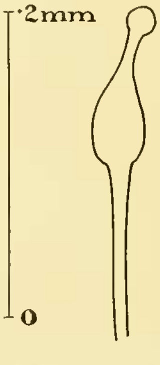

Fig. 64. *Flabelligera luctator*. Elongated papilla.

Flabelligera pennigera, Ehlers.

Ehlers, 1908, p. 123, pl. xvi, figs. 9–10.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore, under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Two specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **N 4–T**. Bottom: green mud and sand. One specimen.

St. 145. 7. i. 27. Stromness Harbour, South Georgia. Between Grass Island and Tonsberg Point. 26–35 m. Gear **BTS**. Four specimens.

REMARKS. The specimens are in very bad condition, and I cannot count the number of chaetigers. The mucous sheath is very thin. There is normally a single hook only in the neuropodia. The dorsal bristles are completely hidden by thick clusters of papillae, which impart to the notopodia the appearance of gills exactly as described by Ehlers.

Flabelligera mundata, Gravier.

Gravier, 1907, p. 37, pl. iv, figs. 31 and 32.
Benham, 1921, p. 108, with synonymy.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH**. Bottom: stones, mud and rock. One specimen.

REMARKS. A single specimen in good condition measuring 38 mm. by 7 mm. including the sheath, for 27 chaetigers. The branchiae are numerous, the mucous sheath is very thick, and there are for the most part three composite hooks to each neuropodium. The papillae attached to the bristles are as figured by Gravier.

Genus **Brada**, Stimpson

Brada villosa (Rathke).

Fauvel, 1927, p. 121, fig. 43 *e–l*.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. One specimen.

REMARKS. There is a very thick coating of sand which hides the skin, and I cannot see the usual circlet of papillae around the parapodia. Nevertheless, I believe that this form belongs to the common northern species. The southern *B. mammillata* appears to lack the delicate flagelliform tips to the ventral bristles. I have examined McIntosh's Challenger specimens of the latter species and I can see no trace of these tips. Their absence may be due to wear, but from the appearance of the bristles I do not think that this is so.

Brada mammillata, Grube.

Ehlers, 1901, p. 180, for synonymy.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Three specimens.

Remarks. I cannot find any flagelliform tips to the ventral bristles, which resemble those figured by McIntosh and Studer. Otherwise they do not appear to be separable from *B. villosa*.

Genus **Pycnoderma**, Grube

Pycnoderma congoense, Grube.

Grube, 1877, p. 540.
Augener, 1918, p. 451, text-fig. 58.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. One specimen.

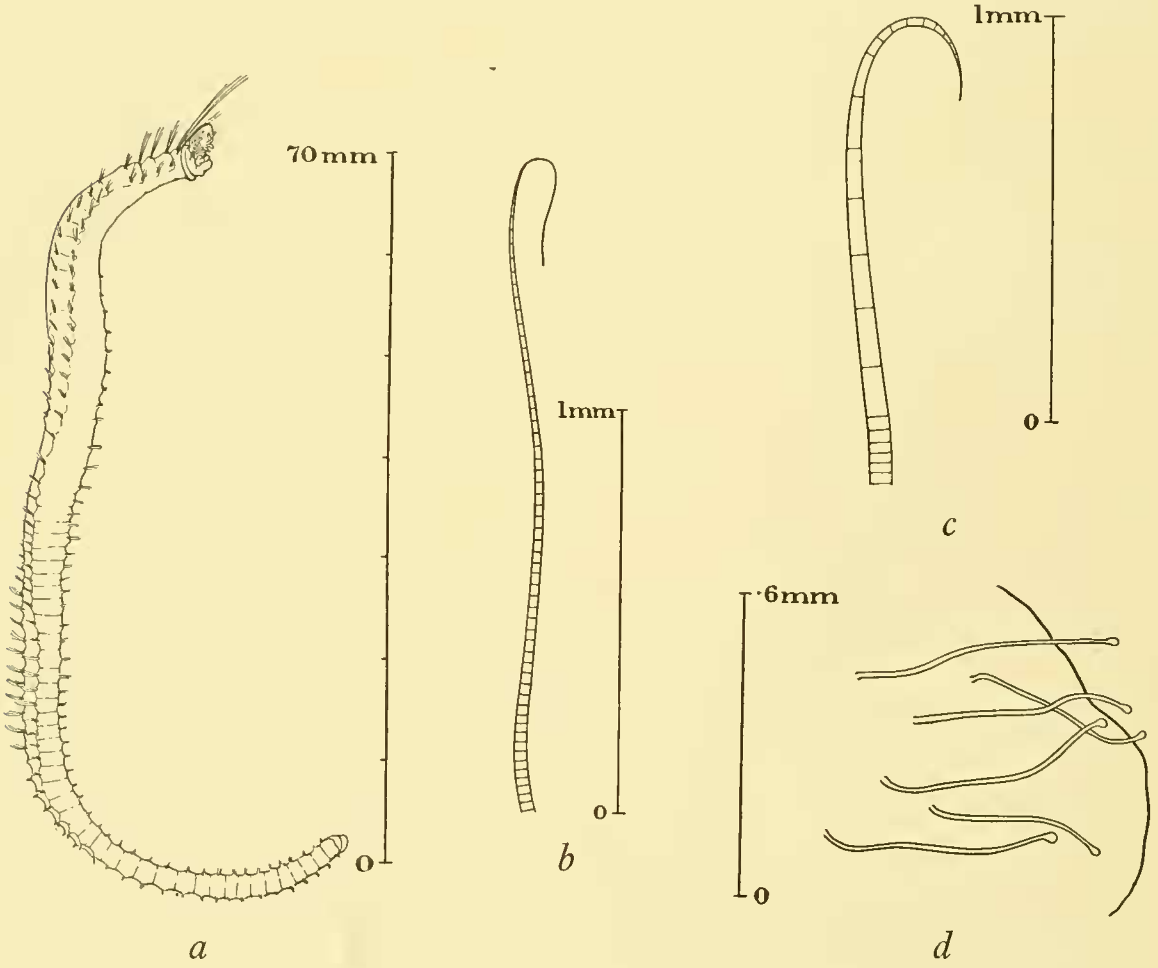

Fig. 65. *Pycnoderma congoense.*

a. Entire specimen. *b.* Dorsal bristle. *c.* Ventral bristle. *d.* Cuticle with papillae.

REMARKS. The body (Fig. 65, *a*) is long and worm-like, measuring 98 mm. by 5 mm. for 69 chaetigers. There are very numerous slender gills and a pair of short thick grooved palps.

The bristles of the cage are few and inconspicuous. The bristles of the 1st chaetiger are all long and forwardly directed: the ventral bristles are shifted dorsally so that they lie close to the dorsal bundle. The dorsal bristles of the 2nd chaetiger are about half the length of those of the 1st, and are also directed forward to form part of the cage. The ventral bristles of the 2nd chaetiger are separated by the normal distance from the dorsal, and are of the characteristic type found throughout the body. They do not form part of the cage. The dorsal bristles of the first four chaetigers are directed forwards.

Dorsal and ventral bristles are figured by Augener (*loc. cit.*). The dorsal (Fig. 65, *b*) are long, thin capillary barred bristles of a transparent white colour; the ventral (Fig. 65, *c*) are twice as thick, pale yellow, and also end in a fine flagelliform tip.

The surface of the specimen is beset with numberless long thread-like papillae (Fig. 65, *d*) with expanded tips.

The tough, transparent, horny, outer layer of the body is, as Grube states, a thick hyaline cuticle and not a mucous sheath homologous with that in *Flabelligera*.

Family SCALIBREGMIDAE

Genus **Scalibregma**, Rathke

Scalibregma inflatum, Rathke.

Fauvel, 1927, p. 123, fig. 44 *a–f*.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Three specimens.

St. 28. 16. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 45° W of Jason Light. 168 m. Gear **DC**. Bottom: mud. One specimen.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. One specimen.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. One specimen.

REMARKS. The specimen from St. 28 is, I think, immature. It is pale yellow in the anterior swollen part of the body and pale green in the rest. There is, moreover, a row of small brown eye spots between the horns of the prostomium: these are absent from the other examples.

Family CAPITELLIDAE

Genus **Capitella**, Blainville

Capitella capitata (Fabricius).

Fauvel, 1927, p. 154, fig. 55 *a–h*.

St. MS 67. 28. ii. 26. East Cumberland Bay, South Georgia. 3 cables NE of Hobart Rock to ½ cable W of Hope Point. 38 m. Gear **NCS–T**. One young specimen.

?. Cumberland Bay, South Georgia. Three specimens.

REMARKS. All the examples are small and immature. They are easily distinguished from the Antarctic *Isomastus perarmatus*, Gravier, by the presence of hooks only in the 8th and 9th chaetigers. The only other record of this species from colder southern waters is that from Kerguelen.

Capitella capitata (Fabricius), var. **antarctica**, var. nov.

St. MS ?. 13. x. 25. From kelp root, Cumberland Bay, South Georgia. Four specimens.

DESCRIPTION. The largest example measures 110 mm. by 2 mm. for 120 chaetigers. I regard these specimens as representing an intermediate form between *C. capitata* and *Isomastus perarmatus*, Gravier.

The 8th and 9th chaetigers have no capillary chaetae, and in this the specimens are distinct from *I. perarmatus*. On the other hand, the copulatory armature of the male corresponds closely to that of Gravier's species. The modified bristles are plainly visible at maturity, and those of the 8th chaetiger overlie those of the 9th. Exactly as Gravier describes, there are five to six crochets on each side in the 8th chaetiger, and four crochets on each side in the 9th. In the abdomen the pads carrying the rows of hooks are more developed than is usual in *C. capitata*.

This form can be considered either as a *C. capitata*, with an unusually highly developed copulatory apparatus, or as an *I. perarmatus*, in which the capillary bristles are lacking from the 8th and 9th chaetigers.

Genus **Notomastus**, Sars

Notomastus latericeus, Sars.

Fauvel, 1927, p. 143, fig. 49 *a–h*.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Four specimens.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One specimen.

REMARKS. This species has been previously recorded in southern waters from Bouvet Island.

? **Notomastus lineatus**, Claparède.

Fauvel, 1927, p. 145, fig. 51 *a–i*.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

REMARKS. A fragment consisting of 24 chaetigers. I have compared this specimen with a number of examples of this species from Naples, and except that in the Mediterranean examples the branchial prolongations of the ventral tori are larger and more bulbous, I can find nothing to separate them.

A confusion of locality labels may possibly have occurred, for it is otherwise hard to account for the presence of this shallow-water Mediterranean species below the 200 m. line in sub-Antarctic waters.

Family OPHELIIDAE

Genus **Ammotrypane**, Rathke

Ammotrypane breviata, Ehlers.

Ehlers, 1913, p. 523, pl. xxxix, figs. 1–7.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N** 4–T. Bottom: green mud. Nine specimens.

Remarks. The largest example measures 34 mm. by 2 mm. The number of chaetigers is 28. The specimens correspond exactly to the description and figures of this species. They have gills on every chaetiger except the 1st and the last four modified chaetigers. The anal cylinder is very faintly and irregularly ringed, and its dorsal peak is much more prominent than the ventral.

Genus **Travisia**, Johnston

Travisia olens, Ehlers.

Ehlers, 1897, p. 98, pl. vi, figs. 162–163.
Benham, 1927, p. 123.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. Two specimens.

Sparrow Cove, Port William, East Falkland Island. 1 m. Net **RM**. One specimen.

Remarks. The terminal segments of these specimens are difficult to count accurately, but there are between 29 and 31 segments. It is also not at all easy to determine the segment on which the posterior or abdominal region, distinguished by the lateral eminences, begins, but I estimate 15–16 posterior segments. The body tapers gradually down to the anal cylinder (Fig. 66) which is equal in length to the last two segments.

Benham (*loc. cit.*) discusses at length the relation of this species to *T. kerguelensis*, McIntosh. I give my views on this matter in my remarks on the latter species.

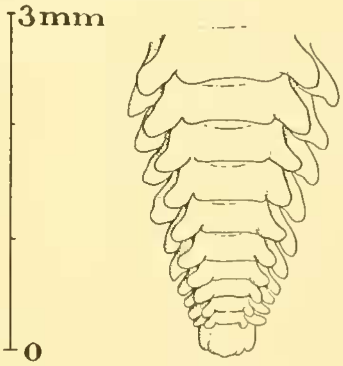

Fig. 66. *Travisia olens.* Pygidium from above.

Travisia kerguelensis, McIntosh.

McIntosh, 1885, p. 357, pl. xliii, fig. 10; pl. xxvi A, figs. 1–2.
Ehlers, 1897, p. 97, pl. vi, figs. 159–161.
Benham, 1927, p. 123.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. Nine specimens.

St. 157. 20. i. 27. 53° 51′ 00″ S, 36° 11′ 15″ W. 970 m. Gear **DLH**. Bottom: diatomic ooze, stones and fine sand. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. Three specimens.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Three specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Three specimens.

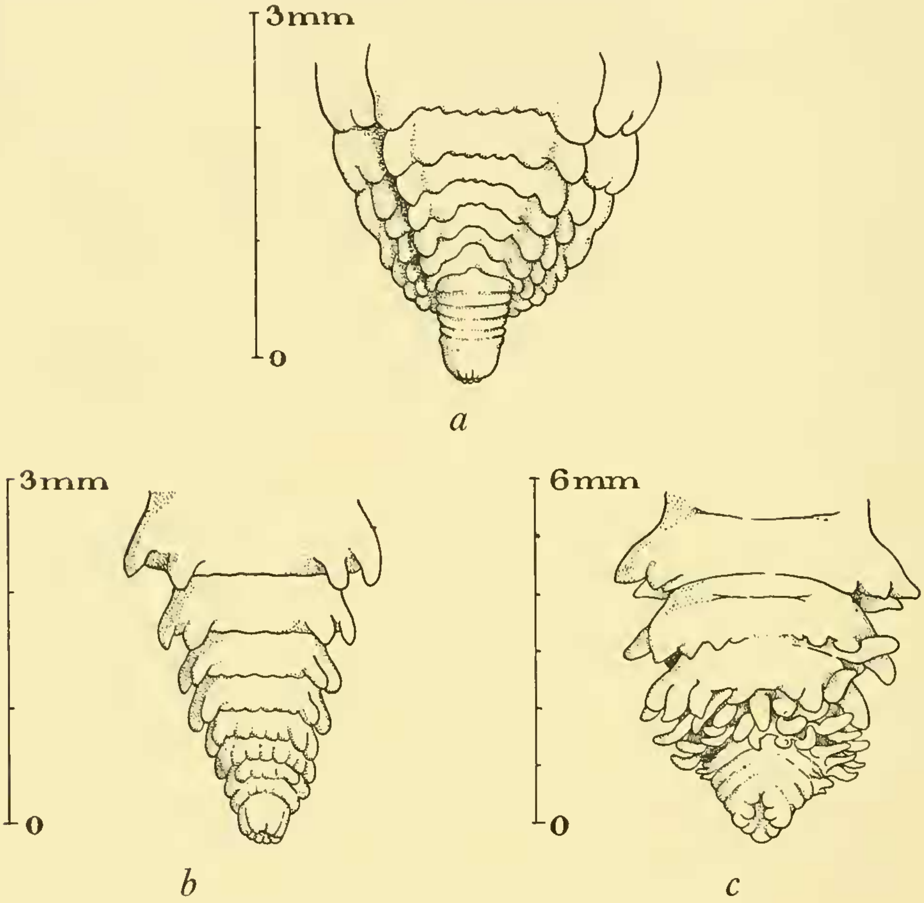

Fig. 67. *Travisia kerguelensis*.
a. Pygidium. *b*. Pygidium. *c*. Pygidium.

Remarks. There are 23–27 segments. The body does not as a rule taper gradually to the anal cylinder, but the latter comes off rather abruptly from the terminal segment. It is equal in length to the last four segments. The posterior part of the body with the lateral eminences has 10 to 11 segments and not 15 to 16, as in *T. olens*. The edges of the terminal segments may be divided into areas as described by Benham (*loc. cit.*), or they may be faintly laciniated (Fig. 67, *a*), or again deeply serrated (Fig. 67, *b*): finally, these serrations may be modified into large spike-shaped papillae (Fig. 67, *c*). At the other end of the series the terminal segments may be perfectly smooth, and apparently associated with this condition is found a pair of dorsal anal cirri at the end of the anal cylinder. It is possible that these anal cirri may have been present but lost from the papillated and laciniated examples. For the specimens with smooth terminal segments and anal cirri I propose to create a new variety.

Benham attaches some importance to the shape and length in relation to number of segments in his specimens. I cannot follow him here: the examples before me vary in shape from that of a cigar to that of an acorn.

I have examined McIntosh's three co-types, and they vary considerably in their degree of papillation, the most extreme example being serrated rather than strongly papillated. In my view all the intermediate stages between a faint areolation to large papillae are present in this species.

To summarise my remarks, I suggest that *T. olens* should be provisionally separated from *T. kerguelensis*, on the ground that *T. olens* has 29 to 31 segments and *T. kerguelensis* 23 to 27; that *T. olens* has 15 to 16 segments involved in the posterior division of the body and *T. kerguelensis* 10 to 11; and that in *T. olens* the body passes gradually into the anal cylinder which is equal in length to the last two segments, whereas in *T. kerguelensis* the anal cylinder, which is equal in length to the last four segments, comes off more abruptly from the body. Moreover, the terminal segments in *T. olens* are smooth and in *T. kerguelensis* more or less laciniated or papillated.

Ehlers regards *T. olens* as identical with the European *T. forbesii*. The latter species seems to me to be nearer to *T. kerguelensis* than to *T. olens*. Fauvel gives 23 to 26 for the number of segments of *T. forbesii*. I have also observed that the longitudinal furrows of the anal cylinder are fewer and the areas they delimit larger than in *T. kerguelensis*.

Travisia kerguelensis, McIntosh, var. **gravieri**, var. nov.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. Nine specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: mud and rock. Three specimens.

REMARKS. This variety differs from *T. kerguelensis* in the absence of papillation or laciniation of the terminal segments, and in the presence of a pair of short dorsal anal cirri (Fig. 68) at the end of the anal cylinder. I have named this variety after my esteemed colleague, Prof. C. Gravier of Paris.

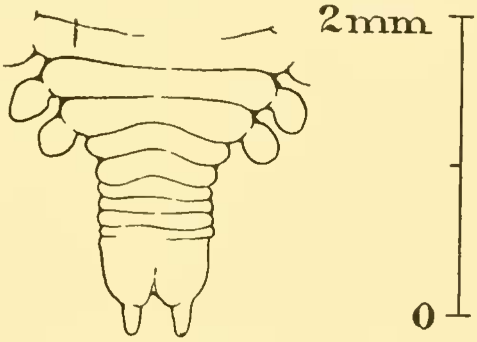

Fig. 68. *Travisia kerguelensis*, var. *gravieri*. Pygidium.

Genus **Kesun**, Chamberlin

Kesun abyssorum, n.sp.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. One specimen.

DESCRIPTION. The body (Fig. 69, *a*) is acorn-shaped from contraction, and measures 21 mm. for 23 chaetigers. The diameter is 6 mm. at its widest part. There is a very short, blunt, smooth prostomium, followed by a triannulate buccal segment with paired nuchal pits. Apart from the prostomium the surface of the body is granular or finely vesicular; and as described by Chamberlin for *Kesun fusus*, each annulus is marked by a row of fine but distinct vesicular papillae. There is no trace of gills.

In the anterior portion of the body the bristle bundles are borne on small papillae, and above and below the foot are one or two papillae much larger than the other papillae of the middle annulus (Fig. 69, *b*). From about the 12th chaetiger all the papillae of the middle ring increase in size till they equal the papillae lying above and below the foot. Consequently, for the last ten segments, the bristle bundles lie in a deep groove (Fig. 69, *c*), the sides of which are formed by the annulus in which the feet lie. The terminal segments are uniannulate. The lateral prominences so conspicuous in *Travisia* are wholly absent.

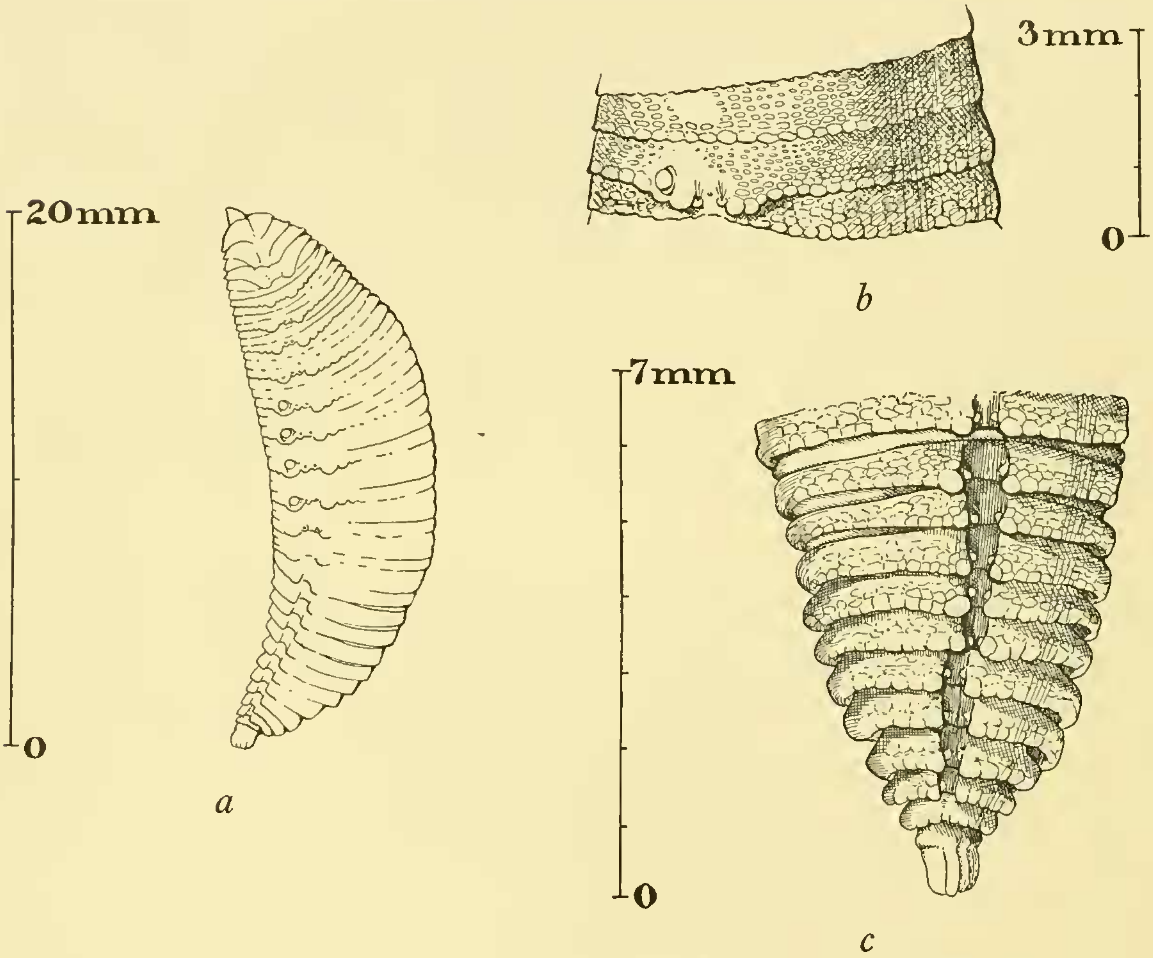

Fig. 69. *Kesun abyssorum*.

a. Entire specimen. *b*. 8th chaetiger. *c*. Terminal segments from the side.

From the 6th to the 9th chaetigers inclusive, there is on each side below the foot an enormous oval nephridiopore, the vertical diameter of which is about equal to the distance between the bristle bundles. Between the bristle bundles sensory pits are present as in *Travisia*. The anal cylinder is about equal in length to the last two segments, and faintly longitudinally furrowed.

REMARKS. This form is allied to *Kesun fusus*, Chamberlin: it differs in the number of segments and in the possession of a deep posterior groove in which the feet lie.

Family MALDANIDAE

Genus **Maldane**, Grube (Malmgren char. emend.)

Maldane decorata, Grube.

Augener, 1918, p. 475, pl. vii, figs. 191–194, text-fig. 75.

St. 274. 4. viii. 27. Off St Paul de Loanda, Angola. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

REMARKS. A complete specimen measures 128 mm. by 4 mm., which is twice as large as the measurements given by Augener. There are 19 chaetigers and two achaetous preanal segments. The head and the first two chaetigers are dorsally mottled with small reddish brown spots. Glandular areas are present on the back from the 3rd to the 6th chaetiger. The thick glandular pads on which the tori lie reach their greatest prominence at the 8th chaetiger. The bristles are well figured by Augener. The border of the anal plate is entire.

Maldane sarsi, Malmgren, var. **antarctica**, Arwidsson.

Arwidsson, 1911, p. 32, pl. i, figs. 23–26; pl. ii, figs. 50–54.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. One specimen.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. One specimen.

St. 186. 16. iii. 27. Fournier Bay, Anvers Island, Palmer Archipelago. 64° 25′ 30″ S, 63° 02′ 00″ W. 295 m. Gear **DLH**. Bottom: mud. One specimen.

St. 192. 27. iii. 27. Off Cape Kaiser, Brabant Island, Palmer Archipelago. 64° 14′ 00″ S, 61° 49′ 00″ W. 750 m.; on lead. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **DLH**. Bottom: mud and stones. 30 specimens.

REMARKS. Arwidsson has given a full and careful account of this species, which he separates from the northern form on differences in the distribution of the glandular areas. He has specialized in the Maldanids, and I follow his naming.

Genus **Rhodine**, Malmgren

Rhodine intermedia, Arwidsson.

Arwidsson, 1911, p. 11, pl. i, figs. 5–11; pl. ii, figs. 39–41.
Rhodine loveni, Willey, 1902, p. 276, pl. xlvi, figs. 3–5.
Rhodine loveni, Gravier, 1911, p. 125, pl. ix, figs. 110–112; pl. x, fig. 114; pl. xi, fig. 133.
? *Rhodine antarctica*, Gravier, 1906, p. 39, pl. iv, figs. 33–37, text-fig. 24.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One fragment.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Ten specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 141. 29. xii. 26. East Cumberland Bay, South Georgia. 200 yards from shore under Mount Duse. 17–27 m. Gear **BTS**. Bottom: mud. Five specimens.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. One specimen.

REMARKS. There are glandular bands from the 3rd to the 10th segment, and double rows of crochets on the 4th to the 14th chaetiger. The segmental collars reappear on the 17th to 18th chaetigers.

I have nothing to add to Arwidsson's comprehensive study of this species. That which Gravier figures as the pygidium of his *R. antarctica* has much the appearance of the end of an incomplete specimen, the supposed anus being possibly the constriction where the delicately joined segments are apt to break off. I figure the posterior end of a specimen (Fig. 70).

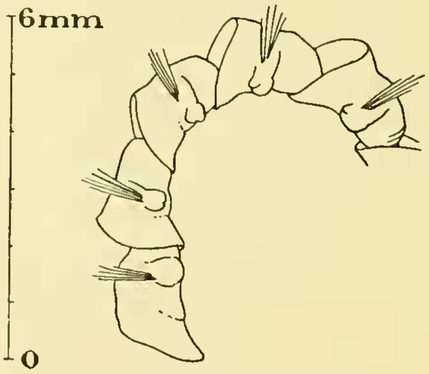

Fig. 70. *Rhodine intermedia*. Posterior segments.

Finally, *R. intermedia* does not seem to be clearly distinguished from *R. loveni*.

Genus **Lumbriclymenella**, Arwidsson

Lumbriclymenella robusta, Arwidsson.

Arwidsson, 1911, p. 3, pl. i, figs. 1–4; pl. ii, figs. 32–36.
Fauvel, 1916, p. 456.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One specimen.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **DLH**. Bottom: mud and stones. Three specimens.

REMARKS. I have nothing to add to Arwidsson's and Fauvel's accounts of this species.

Genus **Clymenella**, Verrill

Clymenella minor, Arwidsson.

Arwidsson, 1911, p. 24, pl. i, figs. 17–22; pl. ii, figs. 44–46.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Off kelp root. Gear **OTL**. Bottom: fine sand. Four specimens.

St. WS 78. 13. iii. 27. 51° 01′ 00″ S, 68° 04′ 30″ W. From 51° 01′ 00″ S, 68° 02′ 00″ W to 51° 01′ 00″ S, 68° 07′ 00″ W. 95 m. Gear **DC**. Bottom: fine dark sand. One specimen.

REMARKS. The fragmentary material at my disposal does not permit me to add anything to Arwidsson's account of this species.

Genus **Clymene**, Savigny

Clymene kerguelensis (McIntosh).

Praxilla kerguelensis, McIntosh, 1885, p. 405, pl. xlvi, fig. 7; pl. xxv A, fig. 6.
Praxillella antarctica, Arwidsson, 1911, p. 19, pl. i, figs. 12–15; pl. ii, figs. 42–43.
Clymene kerguelensis, Fauvel, 1916, p. 457, pl. ix, figs. 48–49.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Two specimens.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

REMARKS. This species has already been carefully studied by the above authors.

Clymene (Isocirrus) yungi (Gravier).

Isocirrus yungi, Gravier, 1911, p. 122, pl. ix, fig. 109; pl. x, figs. 115–120.
Benham, 1921, p. 106.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Three fragments.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen. Gear **N 4–T**. Three specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. One specimen.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. One specimen.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. One specimen.

St. 153. 17. i. 27. 54° 08′ 30″ S, 36° 27′ 30″ W. 106 m. Gear **DLH**. Bottom: rock. One specimen.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. One fragment.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One fragment.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH**. Bottom: stones, mud and rock. Three specimens.

REMARKS. Benham, with more material at his disposal, has supplemented Gravier's account of this species. Gravier gives the number of achaetous ante-anal segments as five and Benham as six. There are undoubtedly six glandular rings, as Benham describes, but the hindmost lies up against the anal funnel and may form part of the anal segment. Gravier writes of the anal funnel of his specimen: "L'aspect rappelle de très près ce qu'Arwidsson (1906, Taf. III, fig. 106) a figuré pour le *Leiochone borealis*." The figure to which Gravier refers represents the anal funnel of an *Isocirrus planiceps* and not of a *Leiochone borealis*.

Genus **Asychis**, Kinberg

Asychis amphiglypta (Ehlers).

Maldane amphiglypta, Ehlers, 1897, p. 119, pl. viii, figs. 187–193.
Asychis amphiglypta, Arwidsson, 1911, p. 35, pl. i, figs. 27–31; pl. ii, figs. 55–58.

St. 29. 16. iii. 26. West Cumberland Bay, South Georgia. 5·9 miles S 51° W of Jason Light. 23 m. Gear **DC**. Bottom: mud and stones. One specimen.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Sixty-two specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Two specimens.

St. 186. 16. iii. 27. Fournier Bay, Anvers Island, Palmer Archipelago. 64° 25′ 30″ S, 63° 02′ 00″ W. 295 m. Gear **DLH**. Bottom: mud. Thirty-five specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **DLH**. Bottom: mud and stones. Eighty specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Two specimens.

REMARKS. There is little I can add to Ehlers' and Arwidsson's accounts of this species. The largest complete specimen measures 100 mm. by 4 mm. There are 19 chaetigers. The border of the cephalic plate is smooth. The buccal segment is achaetous and ventral hooks are absent from the 1st chaetiger.

The examples are without colour and the glandular areas are not very clearly marked. Both head and hinder ends are well figured by Arwidsson. This author states that there are two to three hinder achaetous segments. This is not substantiated by my specimens, which confirm Ehlers' statement that the anal segment alone is achaetous.

Genus **Nicomache**, Malmgren

Nicomache lumbricalis (Fabricius).

Fauvel, 1927, p. 190, fig. 66 *a–i*.
Nicomache capensis, McIntosh, 1885, p. 399, pl. xlvi, fig. 4; pl. xxiv A, figs. 18–19; pl. xxxvii A, fig. 2.
Nicomache lumbricalis, var. *capensis*, McIntosh, 1904, p. 71, pl. vi, fig. 32.

Saldanha Bay, South Africa. Beach collection. Two specimens.

Remarks. I am unable to find any distinction between these specimens and European examples of this species. McIntosh (*loc. cit.* 1904) gives the number of chaetigers of his example from the Cape as 20. My complete specimen has 22 chaetigers, as in the European form.

Nicomache sp.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: mud and rock. Three specimens. 93–126 m. Bottom: stones, mud and rock. One specimen.

Description. The largest fragment has eight chaetigers and measures 52 mm. by 4 mm. The head (Fig. 71, *a* and *b*) and the first two chaetigers have a strong reddish brown colour on the dorsal surface, the colour being most intense along the cephalic keel. Otherwise there is no pigmentation.

There is no cephalic border; the prostomium is bluntly rounded and without eye spots. The cephalic keel is well developed, and lies between the nuchal organs: these form a pair of depressions wider in front than behind and diverging from behind forwards; they do not curve round in front as is usual in the genus. Ventrally there is a very large mouth with a folded posterior lip.

The head and buccal segment are equal in length to the 1st chaetiger. The first three chaetigers are all of about the same length, the 4th is shorter than these and the 5th, 6th and 7th are each about equal to the combined lengths of the 2nd and 3rd. These proportions do not hold good for the single specimen from 93–126 m., in which the increase in the length of the segments begins with the 7th chaetiger. The comparative length of the segments must depend on the mode of contraction of the specimen. Pre-chaetal glandular bands occur on the 4th to the 7th chaetigers, and on the 8th the glandular areas are reduced to uncinigerous pads. The feet lie in the anterior third of the segments as far as the 7th chaetiger: the boundary between the 7th and 8th chaetigers is indistinguishable. The first three chaetigers have one to two large untoothed ventral acicular spines.

The dorsal bundle contains bristles of three kinds: stout bordered bristles ending in hirsute tips (Fig. 71, *c*), long, slender, very delicately pennate bristles (Fig. 71, *d*), and simple capillary bristles (Fig. 71, *e*). The ventral hooks (Fig. 71, *f*) have three teeth above the main fang.

In the same bottle with the specimens from 315 m. is a single posterior fragment which probably belongs to this species. It consists of an anal funnel (Fig. 71, *g*) with 30 equal cirri and a centrally situated anus, two achaetous ante-anal rings and three posterior chaetigers. In the specimen from 93–126 m. the head, buccal segment and 1st chaetiger are regenerated.

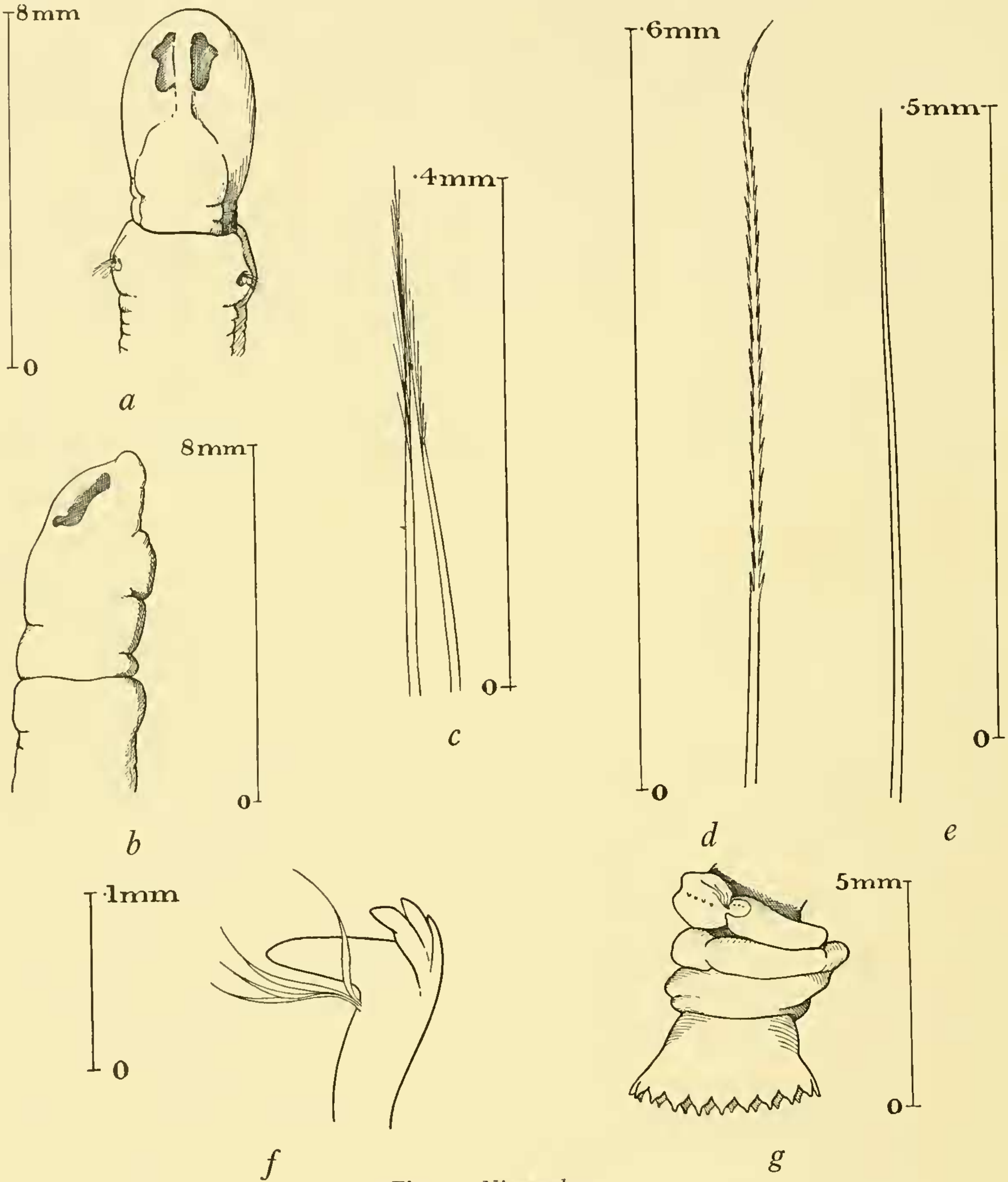

Fig. 71. *Nicomache*, sp.

a. Head seen from above. *b*. Head seen from side. *c*. Stout bordered bristle. *d*. Pennate bristle. *e*. Capillary bristle. *f*. Hook. *g*. Anal funnel.

Remarks. These fragments cannot with certainty be attributed to a genus. They differ from any known Antarctic Maldanid. The head and bristles are close to those of *Nicomache*, to which genus I have provisionally assigned the examples.

Genus **Axiothella**, Verrill

Axiothella antarctica, n.sp.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear N 4–T. Bottom: green mud. Two specimens.

St. WS 76. 11. iii. 27. 51° 00′ 00″ S, 62° 02′ 30″ W. From 51° 00′ 00″ S, 62° 00′ 00″ W to 51° 00′ 00″ S, 62° 04′ 36″ W. 207 m. Gear DC. "Taken from sand brought up by conical dredge." Bottom: fine dark sand. One specimen.

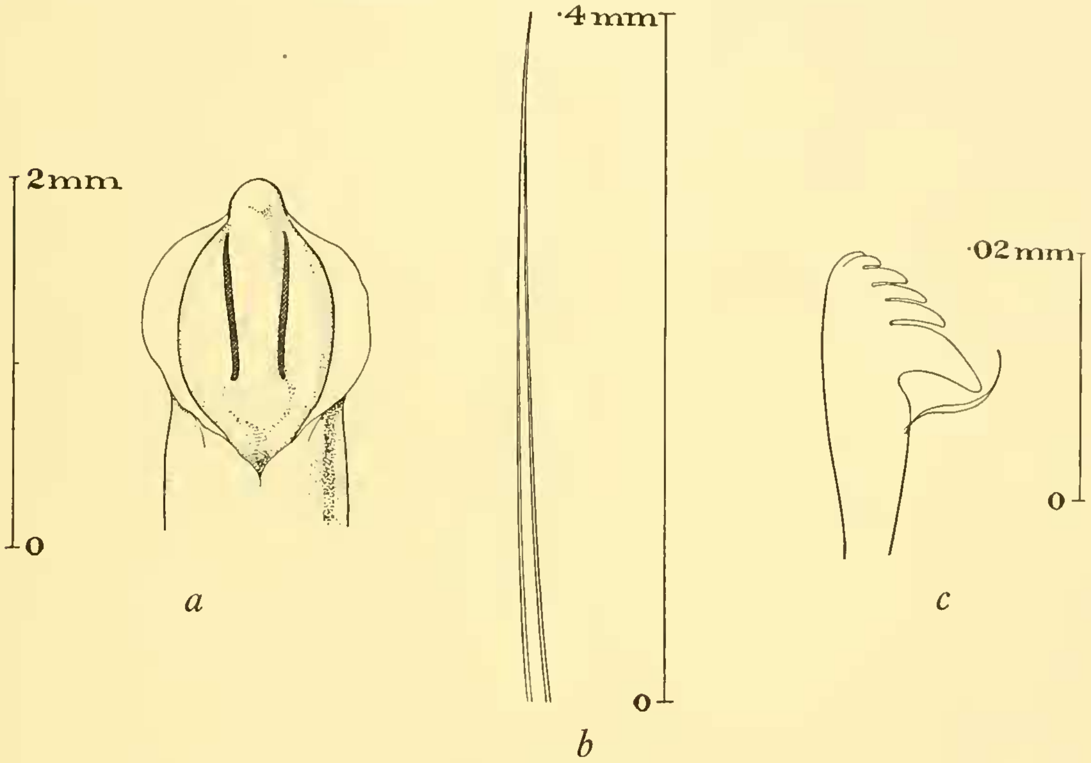

Fig. 72. *Axiothella antarctica.*

a. Head from above. *b.* Dorsal bristle. *c.* Hook.

Description. The largest fragment measures 36 mm. by 1 mm. for eight chaetigers. The colour is an uniform pale green, except for the whitish glandular areas. The head (Fig. 72, *a*) has an oblique cephalic plate with an uninterrupted edge. The prostomium is a small conical structure without eye spots. There is a pair of long parallel nuchal organs set rather far apart.

There is no distinct cephalic keel. There is a long buccal segment about three-quarters the length of the 1st chaetiger. The segments decrease in length to the 4th chaetiger, which is about half the length of the 1st. The 4th to 8th chaetigers are about the same length, and there remains a damaged fragment of a 9th chaetiger which appears to be longer than the 8th. There are prechaetal glandular bands on the 4th to the 8th chaetigers.

Throughout the fragment the feet remain the same distance from the anterior border of the segments.

The 1st chaetiger has about three ventral uncini, but I cannot with certainty distinguish on these any subrostral barbules. I can see only one kind of dorsal bristle: slender, very thinly bordered capillaries (Fig. 72, *b*). The uncini (Fig. 72, *c*) have five to six teeth above the main fang.

REMARKS. I have created a new species for these few fragments; it is necessarily very imperfectly characterised owing to the poverty of the material. Further material may show that this species is identical with one of the two European representatives of the genus, *A. catenata* (Malmgren) or *A. constricta* (Claparède).

The southern *A. quadrimaculata*, Augener, is a much smaller species with a differently shaped head.

Family OWENIIDAE

Genus **Owenia**, Delle Chiaje

Owenia fusiformis, Delle Chiaje.

Fauvel, 1927, p. 203, fig. 71 *a–f*.

St. WS 4. 30. ix. 26. 32° 45′ 00″ S, 18° 10′ 00″ E. 45–47 m. Gear **DL**. Twenty specimens.

REMARKS. The tube with its incrustation of imbricating sand grains and pieces of shell, the branchial laciniated membrane and the innumerable hooks with two parallel teeth are characteristic of this species.

Family SABELLARIIDAE

Genus **Gunnarea**, Johansson

Gunnarea capensis (Schmarda).

Johansson, 1927, p. 99.
Sabellaria capensis, McIntosh, 1885, p. 418, pl. XXV A, figs. 24–25; pl. XXVI A, figs. 11–12; and 1904, p. 74.
Augener, 1918, p. 493.

Saldanha Bay Beach, South Africa, 1926. Three specimens.

REMARKS. These rather ill-preserved specimens are almost uniformly deep black, except for the golden paleae. Johansson has created the genus *Gunnarea* with this as the type species. He gives the absence of dorsal hooks (*Nacken Haken*) as the generic differential. This is scarcely a character of generic value, but although this form agrees with *Idanthyrsus* in the number of rows of paleae and of parathoracic segments, the complete fusion dorsally of the peduncles to form a single opercular structure with concentric rows of paleae, and the distinctive broad outer paleae (see McIntosh, *loc. cit.* Pl. xxv A, fig. 24) render it generically distinct from *Idanthyrsus*. To some extent it combines the characters of *Sabellaria* and *Idanthyrsus*.

Genus Idanthyrsus, Kinberg

Idanthyrsus armatus, Kinberg.

Pallasia sexungulata, Ehlers, 1897, p. 125, pl. viii, figs. 194–202.
Idanthyrsus armatus, Johansson, 1927, p. 90.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 115 m. Gear **DLH**. Bottom: fine sand. Five specimens.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Four specimens.

St. WS 72. 5. iii. 27. 51° 07′ 00″ S, 57° 34′ 00″ W. 95 m. Gear **OTC**. Bottom: sand and shell. One specimen.

St. WS 77. 12. iii. 27. 51° 01′ 00″ S, 66° 31′ 30″ W. From 51° 00′ 00″ S, 66° 30′ 00″ W to 51° 02′ 00″ S, 66° 33′ 00″ W. 110–113 m. Gear **OTC**. Bottom: coarse dark sand. One specimen.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. "Found attached to large *Molgulidae*." Six specimens.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. One specimen.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. Four specimens.

St. WS 92. 8. iv. 27. 51° 58′ 30″ S, 65° 01′ 00″ W. From 52° 00′ 00″ S, 65° 00′ 00″ W to 51° 57′ 00″ S, 65° 02′ 00″ W. 145–143 m. Gear **OTC**. Bottom: fine dark sand and stones. A cluster of tubes with *Serpulid vermidom* and one specimen.

St. WS 95. 17. iv. 27. 48° 58′ 15″ S, 64° 45′ 00″ W. From 48° 57′ 00″ S, 64° 45′ 00″ W to 48° 59′ 30″ S, 64° 45′ 00″ W. 109 m. Gear **DC**. Bottom: fine dark sand, stones and shell. Two specimens.

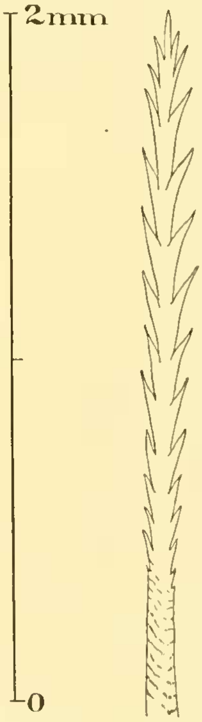

Fig. 73. *Idanthyrsus armatus*. Outer palea.

REMARKS. Ehlers has given a full account of this species. Johansson claims that the outer paleae (Fig. 73) are characteristic. They are certainly distinct from those of the allied *I. pennatus* (Peters) of tropical distribution.

The specimens from St. 53 are very small, measuring 7–10 mm., and I can find only two pairs of dorsal hooks instead of the usual three. Otherwise they do not differ. I take them for young specimens.

The name *Pallasia*, Quatrefages, 1848, retained by Fauvel (1927, p. 206), appears to be preoccupied by *Pallasia*, Desvoidy, 1830, in *Diptera*, and is replaced by *Idanthyrsus*, Kinberg.

Idanthyrsus pennatus (Peters).

Johansson, 1927, p. 88, with synonymy.

St. 2. 17. xi. 25. Clarence Bay, Ascension Island, Catherine's Point and Collyer Point. Shore collection. Four specimens.

Remarks. I have compared these examples with a number of specimens from the Pacific attributed to this species, and also with the type specimen of McIntosh's *Sabellaria johnstoni*, and I can find no distinction between these Atlantic examples and the Pacific forms. I believe this to be the first record of this species from the Atlantic.

The palm-leaf shaped outer paleae (Fig. 74) are probably characteristic of the species. There is only a single pair of large dorsal hooks. Johansson, writing of the opercular peduncles, says: "Ihr vorderer freier Rand trägt keine Papillen." If he means the peduncular wall just external to the outer paleae, his statement is supported neither by these specimens nor by the Pacific forms examined by me. In all examples this wall has a row of papillae: in old and ill-preserved specimens many of these papillae are often lost.

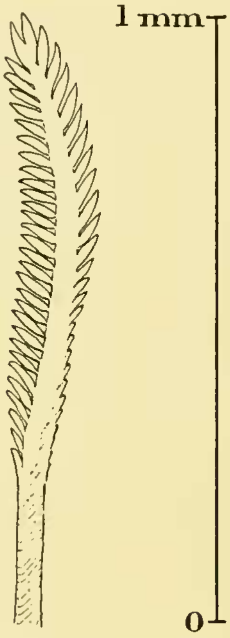

Fig. 74. *Idanthyrsus pennatus*. Outer palea.

Family STERNASPIDAE

Genus **Sternaspis**, Otto

Sternaspis scutata (Ranzani).

Fauvel, 1927, p. 216, fig. 76 *a–g*, with synonymy.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **NCS–T**. Bottom: grey mud. Twelve specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **NCS–T**. Bottom: green mud and sand. Three specimens.

St. 162. 17. ii. 27. Off Signy Island, South Orkneys. 60° 48′ 00″ S, 46° 08′ 00″ W. 320 m. Gear **DLH**. Bottom: green mud. Ninety-five specimens.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. Seventy specimens.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63° 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud and stones. Three specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. Sixty specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 4–T**. Bottom: mud. Sixty-five specimens.

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. One specimen.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 315 m. Gear **DLH**. Bottom: mud and rock. Two specimens.

St. 196. 3. iv. 27. Bransfield Strait, South Shetlands. 62° 17′ 30″ S, 58° 21′ 00″ W. 720 m. Gear **N 70 V**. Bottom: mud and diatomic ooze. Fifteen specimens.

REMARKS. I have compared these specimens with some examples from between Iceland and Jan Mayen, and I can find nothing to distinguish the southern from the northern forms. I believe this to be the first record from Antarctic waters.

Sternaspis scutata (Ranzani), var. **africana** (Augener).

Sternaspis fossor, Stimpson, var. *africana*, Augener, 1918, p. 608, figs. 109 and 110.

St. 274. 4. viii. 27. Off St Paul de Loanda. From 8° 40′ 15″ S, 13° 13′ 45″ E to 8° 38′ 15″ S, 13° 13′ 00″ E. 64–65 m. Gear **OTL**. Bottom: grey mud. Fourteen specimens.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **N 4–T**. Bottom: mud and fine sand. One specimen.

REMARKS. The ventral shield is subrectangular with the posterior mid-ventral notch much reduced, the anterior bristles are more slender, numerous (about 20 in a bundle as opposed to 10 or 12, the usual number in *S. scutata*) and closely set than in *S. scutata* (cf. Augener's figs. 109 *a* and *b*, and 110), and eight out of the fifteen examples have an appearance of macroscopic papillation on the posterior segments visible to the naked eye.

These specimens correspond to Augener's account, and I agree that this form differs from the *S. scutata* of European and colder South Atlantic waters, but I cannot follow him in regarding it as a variety of *S. fossor*, Stimpson. I have examined three examples from Massachusetts Bay, labelled *S. fossor*, from the United States National Museum, and except for traces of what appears to be macroscopic papillation round the posterior end they are indistinguishable from the European form. In fact I agree with Fauvel (1927, p. 216) in uniting *S. fossor* with *S. scutata*.

The appearance of macroscopic papillation seems to be due to small, more or less regularly spaced, aggregations of fine particles of mud entangled in tufts of thread-like papillae (*Hautcirren*). I suspect that these groups of particles correspond in position to islands of gland cells secreting a viscous fluid that causes the particles to adhere to the papillae; and I am not satisfied that they represent special concentrations of skin papillae, which appear to be distributed over the skin equally in examples with and without the apparent macroscopic papillation. Anyhow, the fact that this papillation may be present or absent in examples from the same haul renders it of no value as a differential character.

Marenzeller (1890, Pl. i, figs. 4–7) gives comparative figures of the ventral shields of three species of *Sternaspis* and, with Augener, regards the differences in their shape as specific characters. After examining a very large series of Antarctic specimens, I am of the opinion that the shape of the shield varies too much to be of value as a differential. However, on the whole, the shield of these African specimens is more subrectangular and less notched in the middle posteriorly than the shield of an average Antarctic specimen.

In this relation the shield of these specimens and Augener's figures (109 *d* and *e*) are closer to Marenzeller's figures of the shield of *S. scutata* (*loc. cit.* Fig. 6) than to those of *S. fossor* (Fig. 4). Augener holds the opposite view. Moreover, I am equally of the opinion that the shape of the gill plates and the degree of extension and size of the genital papillae are of little, if any, differential value. There is, however, a substantial distinction in the number and character of the anterior bristles: this is illustrated by Augener.

Regarding the name of this form, if *S. fossor* and *S. scutata* are synonymous, *S. scutata* becomes the stem form and *africana* a variety of this.

Family AMPHICTENIDAE

Genus Pectinaria, Lamarck

Pectinaria sp.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. One specimen.

Remarks. The specimen is too much damaged to be assigned with certainty to any species. It is a massive form, measuring as much as 13 mm. in breadth behind the paleae. It is impossible to count the number of bristle-bearing segments. There are 13 paleae in both groups, the tentacular membrane has about 22 processes and the dorsal collar has the same number. There are six anal hooks on each side. The bristles and hooks resemble those figured by McIntosh (1904, Pl. vii, figs. 35 *a*–36) for *Pectinaria capensis*, to which species the present example probably belongs.

Family AMPHARETIDAE

Genus Amage, Malmgren

Amage sculpta, Ehlers.

Ehlers, 1908, p. 141, pl. xx, figs. 1–9.
Hessle, 1917, p. 121.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. Seven specimens.

St. 177. 5. iii. 27. 27 miles SW of Deception Island, South Shetlands. 63″ 17′ 30″ S, 61° 17′ 00″ W. 1080 m. Gear **DLH**. Bottom: mud, coarse sand and stones. One specimen.

Remarks. The average measurements are about 30 mm. by 6 mm. at the widest part. The body is unusually thick and slug-like and tapers very sharply posteriorly. Notopodial bristles are visible externally on 12 segments only, those of the first two chaetigers (3rd and 4th segments according to Hessle's enumeration) being enclosed within the notopodial lobes. The 3rd segment has only two small bristles inside the lobe. The cirri are enormously developed in the hinder region.

The *Amage sculpta* described by Benham (1927, p. 121) from the Ross Sea belongs, in my opinion, to a different species. Benham's examples have a different shape of body, 15 bristle-bearing notopodia and 15 abdominal segments. The bristles of the first two chaetigers are very much more developed than in these specimens and, as Benham has pointed out, the posterior end, with its two long anal cirri and its six segments without neuropods, is quite different from that described by Ehlers. My specimens confirm Ehlers' account.

The deep-water specimen from St. 177 shows certain differences from the rest. It is a small and apparently ripe female, measuring 11 mm. in length. The difference in breadth between the thoracic and abdominal regions is not so marked as in the other specimens. The cephalic lobe is more clearly trilobed, and the raised glandular bands more distinct. The bristles of the first two chaetigers are not enclosed within the pedal lobe, but project freely. They are small but distinct.

In all other respects this example is indistinguishable from the other specimens. The hooks in all the specimens have paired teeth in the third row as figured by Ehlers.

Genus **Melinna**, Malmgren (Hessle char. emend.)

Melinna cristata (M. Sars).

Fauvel, 1927, p. 237, fig. 83 *i–n*.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. One specimen.

Remarks. A single, rather poorly preserved specimen, which I believe to belong to this species. Ehlers (1908, p. 144) has already recorded it from southern waters, near Bouvet Island.

Genus **Phyllocomus**, Grube

Phyllocomus crocea, Grube.

McIntosh, 1885, p. 427, pl. xlvii, fig. 11; pl. xxvi A, fig. 25; pl. xxxvii A, fig. 6.
Hessle, 1917, p. 123.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Five specimens.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

Remarks. There is not much that I can add to Hessle's diagnosis of this species. The examples from St. 175 have an average measurement of 30 mm. by 4 mm. at the widest part; a damaged example from St. WS 80, doubtfully attributable to this species, is very much larger, measuring 83 mm. in length. The large, rounded prostomium (Fig. 75, *a*) is splashed with dark red pigment, which extends in irregular markings to the under-surface of the buccal segment, and along the back to about the 5th chaetiger.

Hessle does not call attention to the unusual nature of the gills: they are described by Grube as "foliaceae, quasi lanceolatae"; and instead of being of the normal cirriform shape they are flattened and leaf-like for about three-fourths of their length, and end in a rounded cirriform tip. The gills (Fig. 75, *b*) are arranged in two transverse series of three on each side, with the 4th directly in front of the innermost of the series.

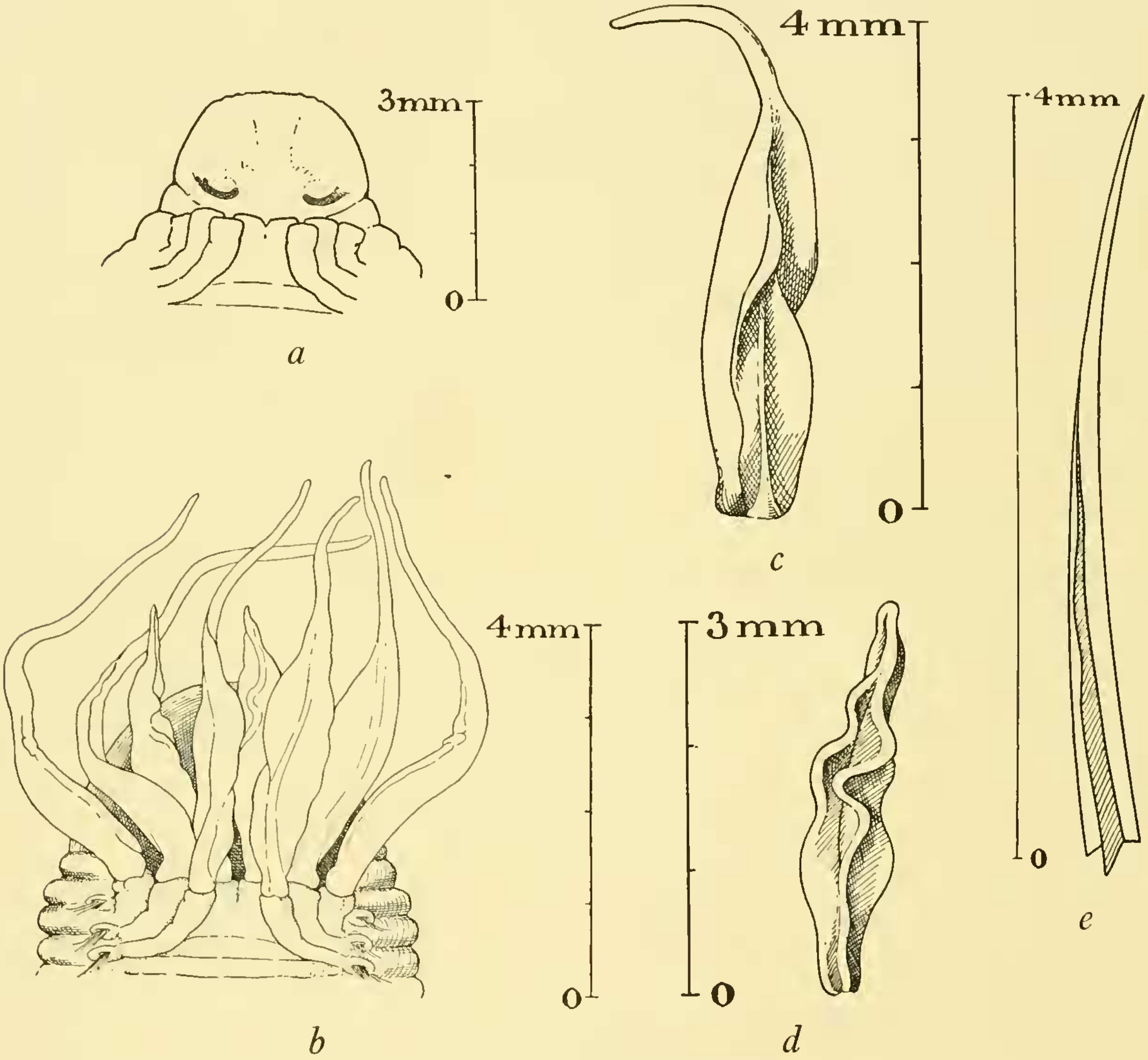

Fig. 75. *Phyllocomus crocea.*

a. Prostomium. *b*. Anterior end with gills. *c*. Posterior member of inner pair of gills on each side. *d*. Anterior member of inner pair of gills on each side. *e*. Dorsal bristle.

Those of the outer pair on each side consist of two membranes, one on each side of a rounded central axis. The posterior member of the inner pair (Fig. 75, *c*) on each side has, in addition to its two membranes separated by the axis, a second, smaller pair of membranes coming off from the axis and extending for about half its length. The anterior member of the inner pair (Fig. 75, *d*) on each side is shorter than the rest and lacks the rounded cirriform tip; it has four membranes, springing from the main axis and continued over its entire length. This condition is exactly similar to that described by Benham (1921, p. 98) for the gill of his *P. dibranchiata.* Moreover, there are three tubular ducts running down from the bases of the gills to the notopods. That from the outermost gill runs to the 1st chaetiger, that from the second gill to the 2nd chaetiger, and that from the hindmost of the inner pair on each side to the 3rd chaetiger. The anterior member of the inner pair on each side has no duct visible externally. The condition is as if the ceratophores of the gills were fused to the back as they ran outwards towards the notopods.

In Benham's account of *P. dibranchiata* he describes analogous ducts as channels open near the gill base, and roofed over on their way to the notopods. In this they differ from those of the present species, in which the "channels" are closed tubes throughout. These ducts are the "areolae" of Grube.

This species is clearly distinct from Benham's *P. dibranchiata*, which has a single pair of gills, each with four membranes. Benham is mistaken in saying that Grube ascribes two pairs of gills to *P. crocea*, for Grube writes: "Branchiae utrinque 4 dorsuales."

The dorsal bristles (Fig. 75, *e*) correspond exactly to those described by Benham for *P. dibranchiata.* They all have the curious third flange which Benham describes and figures. The hooks are well figured by McIntosh.

Genus **Neosabellides**, Hessle

Neosabellides elongatus (Ehlers).

Sabellides elongatus, Ehlers, 1913, p. 551, pl. xlii, figs. 1–6.
Neosabellides elongatus, Hessle, 1917, p. 104.
Benham, 1927, p. 117, pl. iii, figs. 82–86.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. One specimen.

Remarks. From these indifferently preserved specimens, I can add nothing to the already existing accounts of this species.

Genus **Amphicteis**, Grube

Amphicteis gunneri (M. Sars).

Fauvel, 1927, p. 231, fig. 80 *a–k*.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. One specimen.

Remarks. The specimen is poorly preserved, and does not permit a thorough examination. It seems to be inseparable from this widely distributed species. There are, however, only three pairs of gills, and I presume that the fourth has been lost, although I cannot see the usual scar marking the position of a lost gill. I believe this to be the first record of this species from South Africa.

Amphicteis gunneri (M. Sars), var. antarctica, Hessle.

Hessle, 1917, p. 116, text-fig. 21.

St. 28. 16. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 45° W of Jason Light. 168 m. Gear **DC**. Bottom: mud. One specimen.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Two specimens.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 143. 30. xii. 26. Off mouth of East Cumberland Bay, South Georgia. 54° 12′ S, 36° 29′ 30″ W. 273 m. Gear **OTL**. Bottom: mud. One specimen.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. Two specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. Four specimens.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. Twelve specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. Two specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Bottom: mud and stones. Gear **OTM**. Three specimens. Gear **DLH**. Four specimens.

St. WS 32. xii. 12. 26. Mouth of Drygalski Fiord, South Georgia. 225 m. Gear **BTS**. Bottom: grey mud. Five specimens.

St. MS 15. 17. ii. 25. East Cumberland Bay, South Georgia. 3 miles SW of Merton Rock to 2¼ miles NNW of Dartmouth Point. 110 m. Gear **DS**. One specimen.

St. MS 69. 5. iii. 26. East Cumberland Bay, South Georgia. 1½ cables E × N to 8½ cables E × N of Macmahon Rock. 146 m. Gear **DS**. Five specimens.

REMARKS. This species is abundant round South Georgia. In the smaller and presumably younger specimens, the type of palea with a kind of plume on the top, which Hessle regards as a varietal character, is replaced by a more slender and gradually tapering kind such as is found in the stem form. The examples from Sts. 160 and 182 have the posterior raised border of the nuchal organs conspicuously coloured brown: in some from St. 167 there are faint traces of this pigmentation; but in the majority of examples it is completely absent. Unfortunately the type specimens of McIntosh's *A. wyvillei* and *A. sarsi* are too ill-preserved to be of use for purposes of comparison.

? Amphicteis gunneri (M. Sars), var. **japonica** (McIntosh).

Amphicteis japonica, McIntosh, 1885, p. 431, pl. xxvii A, figs. 3–5.
Amphicteis gunneri, var. *japonica*, Hessle, 1917, p. 117.

St. 279. 10. viii. 27. Off Cape Lopez, French Congo. From 8·5 miles N 71° E to 15 miles N 24° E of Cape Lopez Light. 58–67 m. Gear **OTL**. Bottom: mud and fine sand. One specimen.

REMARKS. A single specimen, measuring 21 mm. by 2 mm. The paleae are indistinguishable from those of the northern form, and in this they agree with those of Hessle's Japanese specimens rather than McIntosh's. In fact, as Hessle points out, the only difference between this form and the northern is that the hooks have an extra tooth. Those of my specimen correspond exactly to McIntosh's figure. On distributional grounds I had much hesitation in assigning this form to the Japanese variety, but an *A. gunneri* with an extra tooth to its hooks seems to be an exact account of this form.

Family TEREBELLIDAE

Sub-family *AMPHITRITINAE*, Malmgren

Genus **Terebella**, Linnaeus

Terebella ehlersi, Gravier.

Gravier, 1907, p. 47, pl. v, figs. 45–46, text-figs. 30–31.
Hessle, 1917, p. 190.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Seven specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Six specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH** and **NRL**. Bottom: stones, mud and rock. Two specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Six specimens.

REMARKS. St. 149 yielded a large specimen measuring 145 mm. in length without the tentacles. This is considerably longer than any previous record. Hessle claims that this species has eye spots. With Gravier I cannot see these. The species is distinguished by its twisted and denticulated dorsal bristles.

Genus **Loimia**, Malmgren

Loimia medusa (Savigny).

Fauvel, 1902, p. 94, text-figs. 43–45.
Hessle, 1917, p. 170, for synonymy.

St. 1. 16. xi. 25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′ 00″ W. 16–27 m. Gear **NRM**. Bottom: coral, sand and shell. Six specimens.

Remarks. All these examples are in poor condition. The largest measures 28 mm. by 2 mm. at the widest part. Some have four teeth only in the hooks of the biserial thoracic tori and five teeth in the abdominal hooks: in others there is a small 5th tooth apically in the hooks of the biserial thoracic tori and a 6th tooth in the abdominal hooks. Willey (1905, pp. 302–304) separates *L. medusa* from *L. variegata* (Grube) on the ground that the former species has four teeth only in the hooks of the biserial thoracic tori and five in the abdominal hooks, and *L. variegata* has an additional tooth in the thoracic and abdominal hooks respectively. In view of the variation in the number of uncinal teeth in the present examples, I cannot believe that this alone constitutes a specific distinction. Grube, however, states that *L. medusa* and *L. variegata* are differently coloured. Fauvel (*loc. cit.*) figures four to five uncinal teeth for his *L. medusa* and Augener (1918, p. 540) records five to six uncinal teeth.

In the biserial tori the hooks are set back to back. The present material is unsuitable for an accurate estimate of the number of gland shields, but there appear to be about eleven. *L. montagui* has about eight scutes.

Loimia montagui (Grube).

Willey, 1905, p. 303, pl. vi, figs. 160–163, with synonymy.

St. 270. 27. vii. 27. 13° 58′ 30″ S, 11° 43′ 30″ E. 200 (–0) m. Gear **TYF**. Two specimens. 126 (–0) m. Gear **N 100 B**. One specimen.

Remarks. The largest specimen measures 15 mm. by 2 mm. As in *L. medusa* the 2nd segment sends forward two large foliaceous lobes that fuse in the mid-ventral line. The 3rd segment has a pair of thick triangular lateral lobes. There are eight ventral gland shields. The biserial thoracic tori have the hooks set back to back. The thoracic hooks have six teeth and the abdominal seven teeth. On each side above the notopods is a white glandular tract, extending from the gill region to the 8th chaetiger. It probably corresponds to the path of the large tube joining the nephridia.

Both Fauvel and Augener have recorded *L. medusa* from tropical West Africa. *L. montagui* is easily distinguished by the larger number of teeth to the hooks. I believe this to be the first record of this tropical species from Atlantic waters. I suspect, however, some error in the locality label, for this indicates that these specimens were pelagic. Many Terebellids have pelagic larvae, but the present examples are small but not larval, being in all respects fully formed, and I am unable to account for their presence among the plankton.

Genus Pista, Malmgren

Pista mirabilis, McIntosh.

McIntosh, 1885, p. 454, pl. li, figs. 1 and 2; pl. xxvii A, fig. 34.
Scione mirabilis, Benham, 1921, p. 85, pl. ix, figs. 97–100.
Pista mirabilis, Benham, 1927, p. 99, with synonymy.

St. 170. 23. ii. 27. Off Cape Bowles, Clarence Island. 61° 25′ 30″ S, 53° 46′ 00″ W. 342 m. Gear **DLH**. Bottom: rock. Five specimens.

Remarks. The largest specimen measures 76 mm. by 4 mm. There are several tubes with the characteristic lateral projections. In my opinion Benham (1921, Pl. ix, figs. 97, 98), in his figures drawn to show the arrangement of the lateral lobes, greatly exaggerates the size of the lobe below the 1st notopod. I find the lobe of the 3rd segment larger and more rounded than he shows it, and that of the 4th segment or 1st chaetiger only very slightly developed. I give a figure of the modified hooks (Fig. 76) of the 1st thoracic torus. I have nothing further to add to the numerous accounts of this species and its tube.

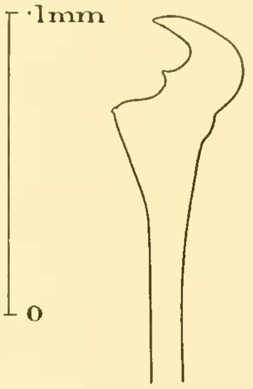

Fig. 76. *Pista mirabitis.* Hook of 1st thoracic torus.

Pista corrientis, McIntosh.

McIntosh, 1885, p. 457, pl. xlviii, fig. 11; pl. xxvii A, fig. 35.
Hessle, 1917, p. 158, pl. ii, figs. 2 and 3.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear OTL. Bottom: fine sand. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear OTM. Bottom: mud and stones. ? Two specimens.

Remarks. Of these specimens only that from St. 51 is suitable for detailed examination. It measures 20 mm. by 2 mm. The cephalic lobe is completely concealed at the sides by the greatly developed lateral flaps of the buccal segment. The 3rd segment has also well-developed lateral processes. The 1st pair of gills (Fig. 77, *a*) has a long stalk and is richly branched at the apex. The 2nd pair is about two-thirds the size of the first. Small nephridial papillae are visible at the sides of the 3rd and 4th notopods (6th and 7th segments). The dorsal bristles have wide wings (Fig. 77, *b*) and the anterior hooks are well figured by McIntosh. I give a figure of a hook (Fig. 77, *c*) from a biserial thoracic torus, in which the posterior prolongation is absent. I find this species difficult to separate from *Pista symbranchiata* (Ehlers).

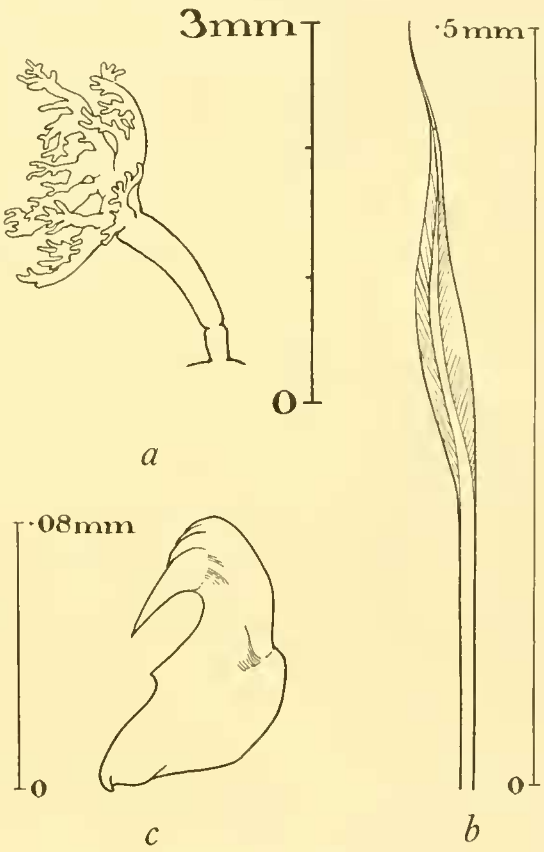

Fig. 77. *Pista corrientis.*

a. Gill. *b*. Dorsal bristle. *c*. Hook from biserial thoracic torus.

Leaena abranchiata, Ehlers, var. **antarctica** (McIntosh).

Hessle, 1917, p. 197.
Benham, 1927, p. 106.
Leaena antarctica, McIntosh, 1885, p. 462, pl. xlviii, figs. 9 and 10; pl. xxviii A, figs. 10 and 11.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Six specimens.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Five specimens.

REMARKS. These specimens have 10 notopods and winged dorsal bristles. Benham gives 11 notopods for his specimens from McMurdo Sound. The dorsal collar of the 3rd segment is very little developed.

Leaena collaris, Hessle.

Hessle, 1917, p. 198, pl. ii, figs. 9 and 10, text-fig. 52 *a–c*.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

REMARKS. This specimen corresponds closely to Hessle's description and figures. I should describe the characteristic dorsal collar of the 3rd segment as being crenellated rather than divided into four lobes, as Hessle describes it. The specimen measures 30 mm. by 3 mm.

Genus **Neoleprea**, Hessle

Neoleprea streptochaeta (Ehlers).

Leprea streptochaeta, Ehlers, 1897, p. 130, pl. viii, figs. 203–205.
Neoleprea streptochaeta, Hessle, 1917, p. 192.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Four specimens.

REMARKS. This species is characterised by the twisted geniculate dorsal bristles. Ehlers gives a full account of it.

Genus **Lanicides**, Hessle

Lanicides vayssieri (Gravier).

Terebella (*Phyzelia*) *vayssieri*, Gravier, 1911, pl. x, figs. 121–123; pl. xi, figs. 134–135.
Lanicides vayssieri, Hessle, 1917, p. 166.
Benham, 1921, p. 83.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Two specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. One specimen.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½ W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. One specimen, ? young.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. Six specimens.

Remarks. The example from St. 45 is very large, measuring 115 mm. without the tentacles for about 110 segments. The 3rd segment has a large lateral lobe: the 1st notopod is on the 4th segment and the 1st neuropod on the 5th. The example from St. 45 has the double rows of hooks beginning on the 10th segment on one side and the 11th on the other: they continue to the 20th segment. There are large nephridial papillae on the 6th and 7th segments. Hessle and Benham have corrected certain misapprehensions in Gravier's original account, but I cannot follow Hessle when he writes of the dorsal bristles "in ihren oberen Teilen ruderförmig erweitert und hier mässig gesäumt." The dorsal bristles (Fig. 78) in these specimens are slender and narrowly bordered, as Gravier describes and figures them.

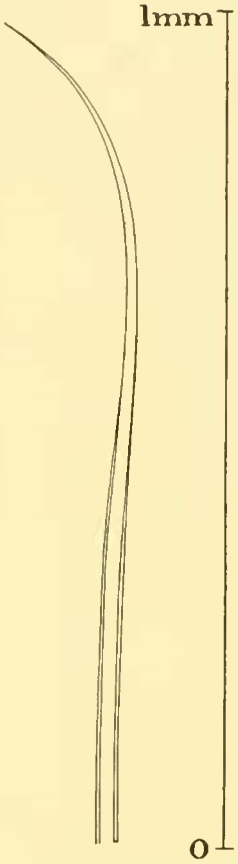

Fig. 78. *Lanicides vayssieri*. Dorsal bristle.

Genus **Amphitrite**, O. F. Müller

Amphitrite kerguelensis, McIntosh.

Hessle, 1917, p. 186, with synonymy.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Two specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. One specimen.

St. WS 99. 19. iv. 27. 49° 42′ 00″ S, 59° 14′ 30″ W. From 49° 41′ 00″ S, 59° 14′ 00″ W to 49° 43′ 00″ S, 59° 15′ 00″ W. 251–225 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

Remarks. This species is characterised by the high dorsal collar on the 4th segment to which the posterior pair of gills is attached.

Amphitrite edwardsi (Quatrefages).

Fauvel, 1927, p. 245, fig. 84 *a–i*.

St. WS 80. 14. iii. 27. 50° 57′ 00″ S, 63° 37′ 30″ W. From 50° 58′ 00″ S, 63° 39′ 00″ W to 50° 55′ 30″ S, 63° 36′ 00″ W. 152–156 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 81. 19. iii. 27. 8 miles N 11° W of North Island, West Falkland Island. From 51° 30′ 00″ S, 61° 15′ 00″ W to 51° 30′ 30″ S, 61° 10′ 00″ W. 81–82 m. Gear **OTC**. Two specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear OTC. Bottom: sand, gravel and stones. Four specimens.

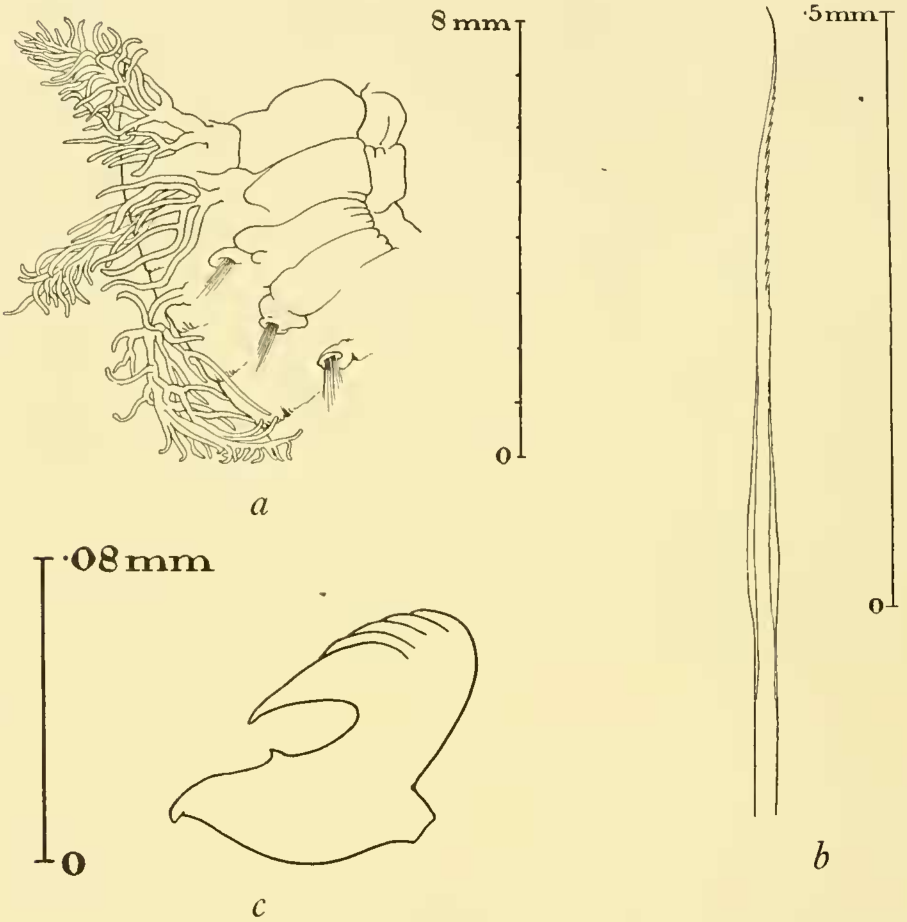

Fig. 79. *Amphitrite edwardsi.*

a. Gills of right side seen from below and from the side. *b.* Dorsal bristle. *c.* Thoracic hook.

Remarks. The largest specimen measures 45 mm. by 6 mm. for 48 chaetigers. It is incomplete posteriorly. The thorax is thick and dorsally arched. There are no eye spots. There are large lateral flaps on the 2nd and 3rd segments and a small one on the 4th. There are 11 ventral gland shields. Each of the three pairs of gills (Fig. 79, *a*) consists of a pair of stout and richly branched trunks. The nephridia extend from the 3rd to the 12th segments. There are 17 thoracic notopods. The dorsal bristles have distinct borders and a long denticulated apex (Fig. 79, *b*). The double rows of hooks (Fig. 79, *c*) extend from the 7th to the 16th uncinigers. The hooks have about six rows of teeth above the main fang. Posteriorly the abdominal tori are gradually transformed into narrow pinnules.

I have compared these specimens with some examples from St Vaast named by Fauvel and, except in the matter of size and in the fact that in the European specimens the nephridia extend from the 3rd to the 11th segments, while in the southern examples they extend from the 3rd to the 12th segments, I can find nothing to distinguish them. The tube is a plain structure with walls of mud.

This species would fall within Hessle's genus *Neoamphitrite*, which Fauvel rejects.

Genus **Nicolea**, Malmgren

Nicolea chilensis (Schmarda).

Hessle, 1917, p. 172.

St. 4. 30. i. 26. Tristan da Cunha. 36° 55′ 00″ S, 12° 12′ 00″ W. 40–46 m. Gear **DL**. Bottom: stones. Fifty-two specimens.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Two specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Twenty specimens.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Two specimens.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. Sixteen specimens.

REMARKS. These specimens have 18 notopods and 16 to 17 gland shields. A specimen from St. WS 88 measures 70 mm. by 5 mm. for 68 segments. The examples from Tristan da Cunha are small, varying between 31 mm. in length and 4 mm., with only four abdominal segments. The majority of specimens from St. 58 are young, with an average length of about 10 mm. In young specimens, the second pair of gills is only very slightly developed.

Nicolea macrobranchia (Schmarda).

Augener, 1918, p. 527, pl. vii, figs. 232–233, text-fig. 89, with synonymy.

St. MS 82. 6. ix. 26. Off Salamander Point, Saldanha Bay, South Africa. 7–14 m. Gear **BTS**. Two specimens.

REMARKS. Of these examples one measures 29 mm. without the tentacles and has 34 bristle-bearing notopods; the other measures 24 mm. and has 25 bristle-bearing notopods. Behind the 25th notopod the body is regenerating.

Sub-family *ARTACAMINAE*

Genus **Artacama**, Malmgren

Artacama proboscidea, Malmgren.

Hessle, 1917, p. 194, with synonymy.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44 E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Nine specimens.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Two specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **NCS–T**. Bottom: green mud and sand. One specimen.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. One specimen.

REMARKS. The largest example measures 82 mm. by 6 mm. The appearance of the abdominal segments varies much with the degree of contraction of their cirri.

Sub-family *THELEPINAE*, Hessle

Genus **Thelepus**, Leuckart

Thelepus cincinnatus (Fabricius).

Fauvel, 1927, p. 271, fig. 95 *i–m*.
Hessle, 1917, p. 212.
Benham, 1927, p. 111.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Twenty specimens, with numerous tubes, mud and debris.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Five specimens.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Eighteen specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Twenty specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Thirteen specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. Five specimens.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. Five specimens.

St. 149. 10. i. 27. Mouth of East Cumberland Bay, South Georgia. From 1·15 miles N 76½° W to 2·62 miles S 11° W of Merton Rock. 200–234 m. Gear **OTL**. Bottom: mud. Eleven specimens.

St. 152. 17. i. 27. 53° 51′ 30″ S, 36° 18′ 30″ W. 245 m. Gear **DLH**. Bottom: rock. Ten specimens.

St. 159. 21. i. 27. 53° 52′ 30″ S, 36° 08′ 00″ W. 160 m. Gear **DLH**. Bottom: rock. Nine specimens.

St. 163. 17. ii. 27. Paul Harbour, Signy Island, South Orkneys. 18–27 m. Gear **BTS**. One specimen. .

St. 187. 18. iii. 27. Neumayr Channel, Palmer Archipelago. 64° 48′ 30″ S, 63° 31′ 30″ W. 259 m. Gear **DLH**. Bottom: mud. Two specimens.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. One specimen.

St. WS 27. 19. xii. 26. 53° 55′ 00″ S, 38° 01′ 00″ W. 107 m. Gear **N 100 H**. (Net touched bottom.) Bottom: gravel. Two specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel, stones. Two specimens.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½ W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. Fifteen specimens, with numerous tubes, mud and debris.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. One specimen.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. One specimen.

REMARKS. An example from St. MS 68 measures 190 mm. for about 105 segments. Only the last 23 segments are without notopods. I believe that in the southern forms belonging to this species the gills more nearly meet in the mid-dorsal line than in the northern forms. In some examples there is only the width of about two gills separating the tufts of branchiae.

Thelepus setosus (Quatrefages).

Fauvel, 1927, p. 273, fig. 95 *a–h*, with synonymy.
Thelepus plagiostoma, Hessle, 1917, p. 214.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Four specimens.

St. 53. 12. v. 26. Port Stanley, East Falkland Island. Hulk of "Great Britain." 0–2 m. Gear **RM**. Two specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Two specimens.

St. WS 25. 17. xii. 26. Undine Harbour (North), South Georgia. 18–27 m. Gear **BTS**. Bottom: mud and sand. One specimen.

St. WS 56. 14. i. 27. Larsen Harbour, Drygalski Fiord, South Georgia. 2 m. Gear **NH**. Off kelp root. Eight specimens.

St. WS 65. 22. i. 27. Undine Harbour (North), South Georgia. From kelp root. One specimen.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 90. 7. iv. 27. 13 miles N 83° E of Cape Virgins Light, Argentine Republic. From 52° 18′ 00″ S, 68° 00′ 00″ W to 52° 19′ 30″ S, 67° 57′ 00″ W. 82–81 m. Gear **OTC**. Bottom: fine dark sand. Two specimens.

St. WS 97. 18. iv. 27. 49° 00′ 30″ S, 61° 58′ 00″ W. From 49° 00′ 00″ S, 62° 00′ 00″ W to 49° 01′ 00″ S, 61° 56′ 00″ W. 146–145 m. Gear **OTC**. Bottom: sand, gravel and stones. One specimen.

13. iv. 25. East Cumberland Bay, South Georgia. Two specimens.

REMARKS. I have nothing to add to Fauvel's (1916, pp. 466–471) exhaustive discussion of this species.

Sub-family *POLYCIRRINAE*, Malmgren

Genus **Polycirrus**, Grube

Polycirrus kerguelensis (McIntosh).

Hessle, 1917, p. 221.
Ereutho kerguelensis, McIntosh, 1885, p. 474, pl. xxviii A, figs. 20–21.
Polycirrus kerguelensis, Gravier, 1911, p. 141, pl. xi, fig. 136.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Two specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Four specimens.

St. 144. 5. i. 27. Off mouth of Stromness Harbour, South Georgia. From 54° 04′ S, 36° 27′ W to 53° 58′ S, 36° 26′ W. 155–178 m. Gear **NCS–T**. Bottom: green mud and sand. One specimen.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. One specimen.

REMARKS. All these examples have 11 notopods and the neuropods begin behind the last notopod. The dorsal bristles are winged. In the present collection there are several ripe males with very large nephridial papillae on the 4th, 5th and 6th chaetigers.

Polycirrus hamiltoni, Benham.

Benham, 1921, p. 94, pl. ix, figs. 101–106.

St. 51. 4. v. 26. Off Eddystone Rock, East Falkland Island. From 7 miles N 50° E to 7·6 miles N 63° E of Eddystone Rock. 105–115 m. Gear **OTL**. Bottom: fine sand. Four specimens.

St. 52. 5. v. 26. Port William, East Falkland Island. 7·4 cables N 17° E of Navy Point. 17 m. Gear **LH**. Three specimens.

REMARKS. All specimens are in poor condition. They agree in the main with Benham's account. The average size is 20 mm. by 2 mm. There are between 30 and 40 notopods. The neuropods begin at about the 13th chaetiger. Benham gives 13 pairs of gland shields: my specimens show only 11 clearly defined pairs. Benham states that there is a small nephridial papilla below each of the first eight notopods. These I do not see, but as far as can be gathered from dissection of this inadequate material there are six pairs of nephridia of equal size occupying the first six chaetigers. If, as I suspect, the 1st notopod occurs on the 3rd segment, this arrangement of the nephridia would correspond to that found in all the other species of *Polycirrus* with more than three pairs of nephridia. It is, however, impossible to determine externally the limits of the first three segments.

As Benham states, there are two kinds of dorsal bristle, a larger kind (Fig. 80, *a*) with one edge clearly denticulated, and a smaller kind (Fig. 80, *b*) with a row of minute teeth on both edges. The hooks (Fig. 80, *c*) correspond to Benham's description, except that he omits to mention the very distinct striae on the body of the hook.

I believe the smaller type of toothed dorsal bristle to be characteristic of this species.

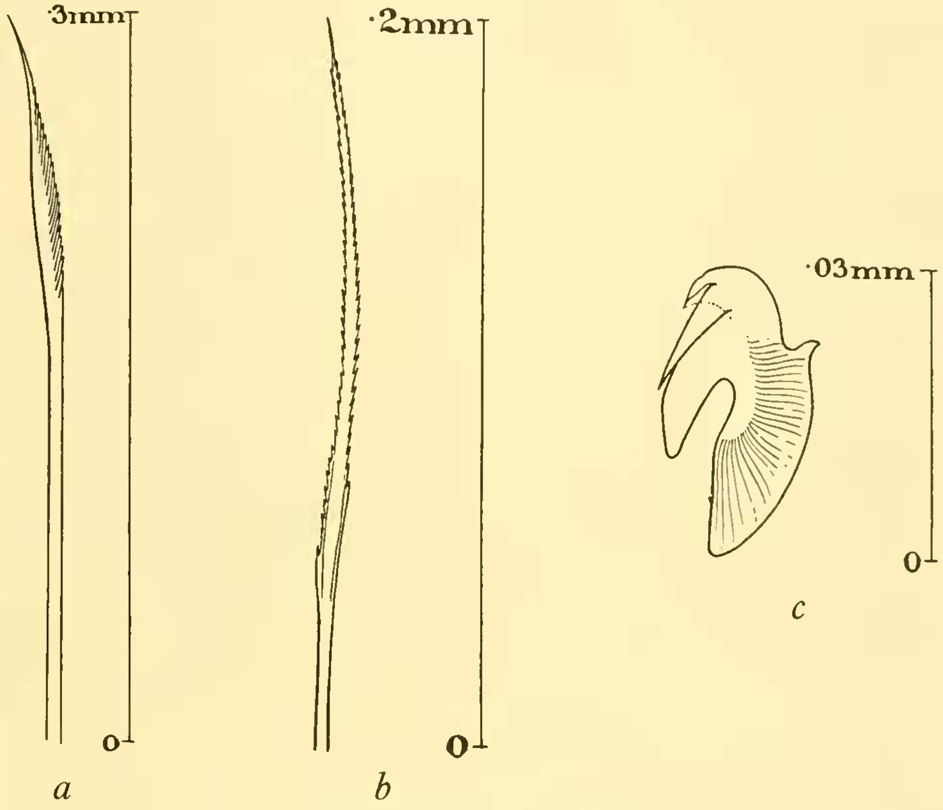

Fig. 80. *Polycirrus hamiltoni.*

a. Larger kind of dorsal bristle. *b*. Smaller kind of dorsal bristle. *c*. Hook.

Polycirrus hesslei, n.sp.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. Eight specimens.

DESCRIPTION. The largest specimen measures 70 mm. by 4 mm. for about 125 segments. The body is swollen and arched dorsally in the thoracic region and tapers in the abdomen. The cephalic lobe (Fig. 81, *a*) is carried forward as a large trilobed undulating membrane completely hidden by a dense tangle of long tentacles. The ventral gland shields of the 1st, 2nd and of the anterior part of the 3rd segments are fused into a large, roughly shield-shaped mass, which in some of the examples is divided by a groove corresponding in position to the anterior border of the 2nd segment. In some specimens this groove is altogether absent. There are 10 pairs of ventral gland shields, counting the reduced pairs of the 2nd and 3rd segments. These gland shields are widely separated throughout in the mid-ventral line. There are six pairs of nephridia, extending from the 3rd to the 8th segment. As in *P. caliendrum* they decrease in size from the first to the third pairs: the remainder are of equal size and smaller than the 3rd pair.

There are several ripe females among the specimens, and these have rounded glandular orifices below the bristles in the 6th, 7th and 8th segments.

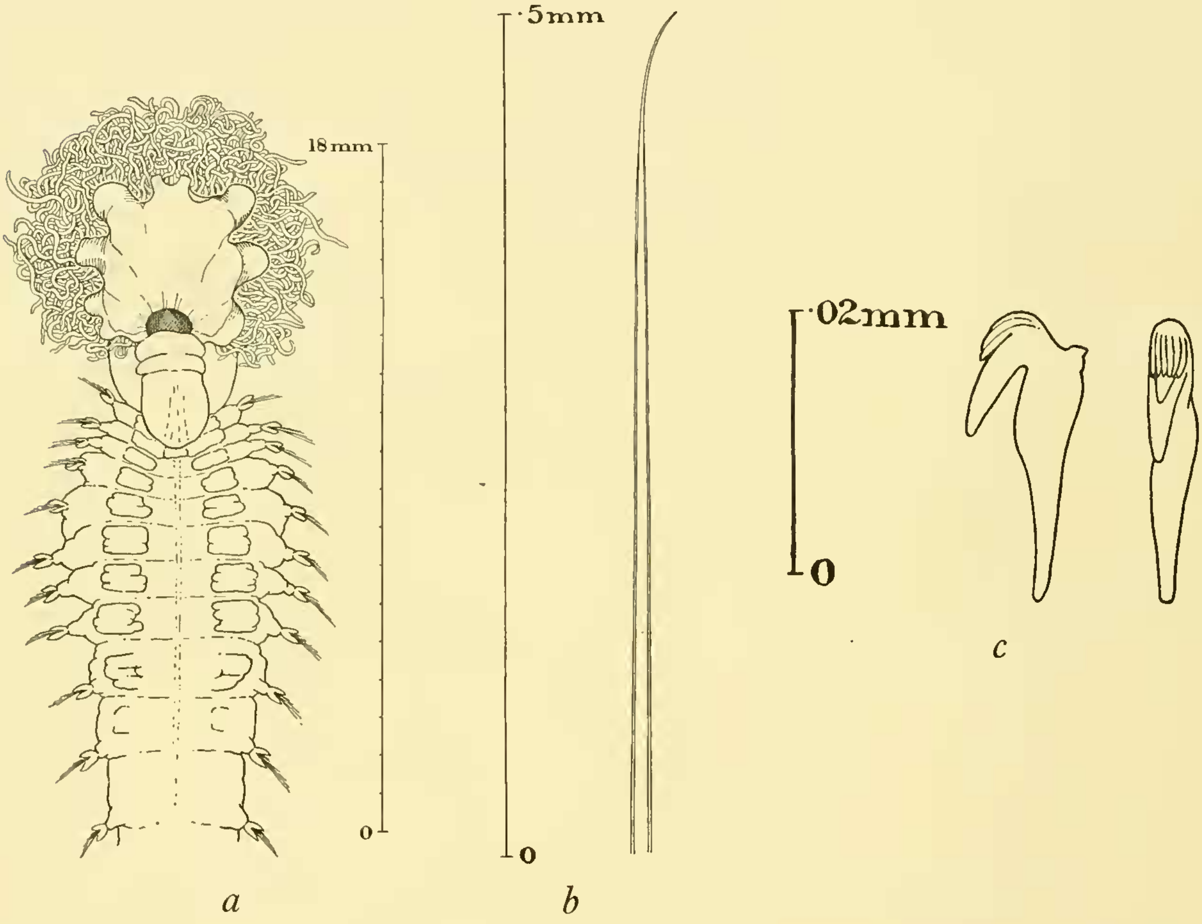

Fig. 81. *Polycirrus hesslei.*

a. Ventral view of anterior end. The tentacles have been pushed back to show the cephalic lobe. *b.* Dorsal bristle. *c.* Hooks.

The bristles begin on the 2nd segment and there are 13 notopods with cirriform processes. The uncini begin at the 14th chaetiger. The dorsal bristles (Fig. 81, *b*) are long and slender and very thinly bordered. Under a one-twelfth objective, they appear to have finely hirsute edges, which I hesitate to describe as a true denticulation. The abdominal hooks (Fig. 81, *c*) have above the main fang a single tooth surmounted by a row of about six denticles. The intestine is filled with sand.

REMARKS. This form is clearly separated from *P. kerguelensis* by the character of its dorsal bristles: it is nearer to Gravier's *P. insignis*, but differs from it in a number of characters. Gravier's species had only 28 abdominal segments, and the bristles begin on the 4th instead of the 2nd segment. The shape of the hooks is also different.

This species belongs to the same group as *P. arenivorus* and *P. caliendrum*, but differs in having very much fewer notopods.

Genus **Lysilla**, Malmgren

Lysilla loveni, Malmgren, var. **macintoshi**, Gravier.

Hessle, 1917, p. 231.
Lysilla macintoshi, Gravier, 1907, p. 56, fig. 37.

St. 28. 16. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 45° W of Jason Light. 168 m. Gear **DC**. Bottom: mud. Five specimens.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Three specimens.

St. 181. 12. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 20′ 00″ S, 63° 01′ 00″ W. 160–335 m. Gear **OTL**. Bottom: mud. One specimen.

REMARKS. I think Hessle is right in treating Gravier's species as a variety of the northern form. The present specimens are exceptionally large, measuring as much as 80 mm. by 5 mm. at the widest part. The northern form has not been recorded with a length greater than 60 mm. The bristles are wholly enclosed within a layer of tissue, and their ends all have the appearance of having been broken; I cannot find a trace of the characteristic spatulate enlargement at the tip. In two of the specimens, females filled with eggs, in the 4th, 5th and 6th chaetigers the place of the nephridial papillae is taken by large cordiform orifices (Fig. 82) with glandular lips. Similar orifices are mentioned by Gravier as occurring on the 3rd, 4th and 5th chaetigers in some of his examples. I regard these orifices as nephridial papillae modified for the release of the sexual products. They occur in the female only. It may have been the observation of similar orifices that led Hessle to write that contracted nephridial papillae in the northern form can assume a more or less sucker-like appearance.

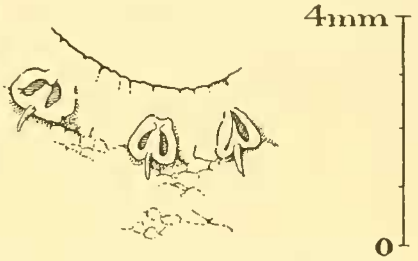

Fig. 82. *Lysilla loveni*, var. *macintoshi*. Genitonephridial orifices.

Genus **Hauchiella**, Levinsen

Hauchiella tribullata (McIntosh).

Hessle, 1917, p. 233, with synonymy.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S ½ E to 8½ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Three specimens.

REMARKS. The largest example measures 49 mm. in length without the tentacles; Hessle gives 30 mm. as the greatest recorded length. I see four pairs of nephridiopores, of which the posterior three are larger than the first pair.

Sub-family *CANEPHORINAE*, Malmgren

Genus **Terebellides**, Sars

Terebellides minutus, Hessle.

Hessle, 1917, p. 138, pl. i, fig. 16, text-fig. 29 *a–e*.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Six specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Eight specimens.

St. WS 62. 19. i. 27. Wilson Harbour, South Georgia. 15–45 m. Gear **BTS**. One specimen.

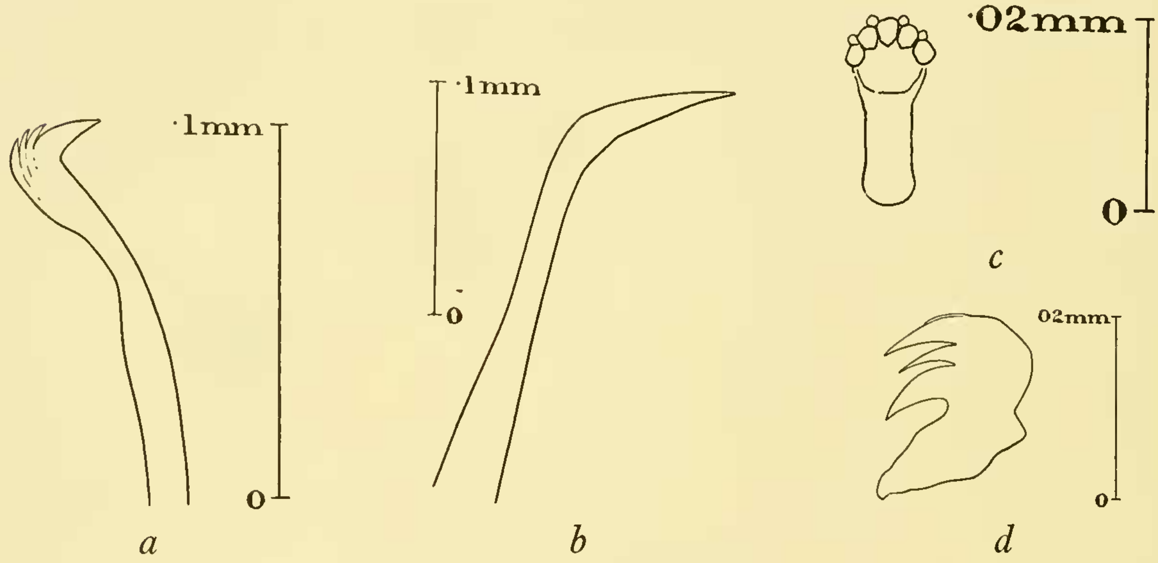

Fig. 83. *Terebellides minutus*.

a. Thoracic hook. *b*. Modified hook of 1st thoracic torus. *c*. Abdominal hook from in front. *d*. Abdominal hook in profile.

Remarks. The largest specimen measures 42 mm. in length and has 35 abdominal segments. I am inclined to think that *T. minutus*, Hessle, and *T. antarcticus*, Hessle, are the same species. Both are distinguished from *T. longicaudatus* by having the 1st notopod fully developed and by the absence of lateral flaps to the anterior segments.

Both have thoracic hooks with markedly curved necks (Fig. 83, *a*). The angle between the shaft and the terminal section of the modified hooks of the 1st neuropod (Fig. 83, *b*) varies not only from specimen to specimen but in the individual hooks of a single torus.

The general arrangement of the teeth of the abdominal hooks (Fig. 83, *c* and *d*) is the same in both species, and in this relation I may say that under an oil immersion lens the number of larger teeth in the hooks from a single abdominal pinnule appears to vary between four and six. The most usual number is five teeth.

Hessle gives the greatest recorded length for *T. minutus* as 35 mm. and that for *T. antarcticus* as 65 mm. I suggest that *T. minutus* represents a stage in the growth of *T. antarcticus*. *T. minutus* has priority.

Terebellides longicaudatus, Hessle.

Hessle, 1917, p. 139, pl. i, fig. 17, text-fig. 30 *a–c*.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Seven specimens.

St. 30. 16. iii. 26. West Cumberland Bay, South Georgia. 2·8 miles S 24° W of Jason Light. 251 m. Gear **DLH**. Bottom: mud and stones. Four specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Three specimens.

St. 182. 14. iii. 27. Schollaert Channel, Palmer Archipelago. 64° 21′ 00″ S, 62° 58′ 00″ W. 278–500 m. Gear **N 7–T**. Bottom: mud. One specimen.

REMARKS. This species is distinguished by the reduction of the 1st notopod and the great development of the side lobes of the 3rd and 4th segments. The largest specimen measures 95 mm. in length; this is 20 mm. longer than the maximum hitherto recorded. In some examples the dorsal bristles of the 1st notopod are so much reduced that they are enclosed in the tissue of the segment and only discoverable by dissection. One of the specimens from St. 30 has 19 notopods.

Family SABELLIDAE

Sub-family *SABELLINAE*

Genus **Sabella**, Linnaeus

Sabella pavonina, Savigny.

Fauvel, 1927, p. 298, fig. 102 *a–e*.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. One specimen.

REMARKS. After prolonged examination, I cannot separate this specimen from the European *S. pavonina*. It measures 28 mm. for the body and 9 mm. for the gills. There are only six thoracic chaetigers. There are 14 pairs of gills with three bands of dark brown pigment. The collar with its four lobes, the ventral pair being thick and fleshy, is coloured dark brown on the inside.

The sole difference that I can find between this specimen and a typical European example is that in this specimen the collar slopes more sharply backwards from the ventral to the dorsal surface, and thus leaves a greater part of the nuchal area exposed. I see no trace of fleshy pads at the base of the branchiae.

Augener records this species from Senegal.

Genus **Potamilla**, Malmgren

Potamilla antarctica (Kinberg).

Potamilla antarctica, Gravier, 1907, p. 59, text-figs. 38–43.
Potamilla antarctica (Kinberg), Benham, 1921, p. 109, with synonymy.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear **OTL**. Bottom: grey mud. Seven specimens.

St. 42. 1. iv. 26. Off mouth of Cumberland Bay, South Georgia. From 6·3 miles N 89° E of Jason Light to 4 miles N 39° E of Jason Light. 120–204 m. Gear **OTL**. Bottom: mud. Four specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Four specimens.

St. 48. 3. v. 26. 8·3 miles N 53° E of William Point Beacon, Port William, Falkland Island. 105–115 m. Gear **OTL**. Bottom: sand and shell. One specimen.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear **BTS**. Three specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. Sixty specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. Four specimens.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen.

St. 153. 17. i. 27. 54° 08′ 30″ S, 36° 27′ 30″ W. 106 m. Gear **DLH**. Bottom: rock. One specimen.

St. 154. 18. i. 27. Jason Harbour to Larsen Point, South Georgia. From 2·6 miles S 84° W to 5½ cables S 26° E of Larsen Point. 60–160 m. Gear **OTL**. Bottom: mud. Five specimens.

St. 175. 2. iii. 27. Bransfield Strait, South Shetlands. 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m. Gear **DLH**. Bottom: mud, stones and gravel. Ten specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH**. Bottom: stones, mud and rock. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. Twenty specimens.

St. WS 73. 6. iii. 27. 51° 01′ 00″ S, 58° 54′ 00″ W. From 51° 02′ 00″ S, 58° 55′ 00″ W to 51° 00′ 00″ S, 58° 53′ 00″ W. 121–130 m. Gear **OTC**. Bottom: fine dark sand. One specimen.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. Four specimens.

St. WS 84. 24. iii. 27. 7½ miles S 9° W of Sea Lion Island, East Falkland Island. From 52° 33′ 00″ S, 59° 08′ 00″ W to 52° 34′ 30″ S, 59° 11′ 00″ W. 75–74 m. Gear **OTC**. Bottom: coarse sand, shell and stones. Two specimens.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear **OTC**. Bottom: sand and shell. Three specimens.

St. WS 88. 6. iv. 27. 54° 00′ 00″ S, 64° 57′ 30″ W. From 54° 00′ 00″ S, 65° 00′ 00″ W to 54° 00′ 00″ S, 64° 55′ 00″ W. 118 m. Gear **OTC**. Bottom: sand, shell and stones. Two specimens.

St. WS 90. 7. iv. 27. 13 miles N 83° E of Cape Virgins Light, Argentine Republic. From 52° 18′ 00″ S, 68° 00′ 00″ W to 52° 19′ 30″ S, 67° 57′ 00″ W. 82–81 m. Gear **OTC**. Bottom: fine dark sand. Three specimens.

St. MS 14. 17. ii. 25. From 1·5 miles SE × S to 1·5 miles S ½ W of Sappho Point, East Cumberland Bay, South Georgia. 190–110 m. Gear **DS**. Two specimens.

REMARKS. Almost the only character which is constant in this common and much described Antarctic species is the bristles and hooks. Benham (*loc. cit.*) gives a good account of the variation in this species, but he does not mention that the shape of the collar and especially that of the ventral lappets also shows some variation.

Genus **Bispira**, Kröyer

Bispira magalhaensis (Kinberg).

Sabella magalhaensis, Kinberg, 1857–1910, p. 72, pl. xxvii, fig. 5.
Bispira magalhaensis, Fauvel, 1916, p. 471, pl. ix, figs. 34–43.

St. 55. 16. v. 26. Entrance to Port Stanley, East Falkland Island. 2 cables S 24° E of Navy Point. 10–16 m. Gear **BTS**. Two specimens.

St. 58. 19. v. 26. Port Stanley, East Falkland Island. 1–2 m. Gear **RM**. One specimen.

REMARKS. The largest specimen from St. 58 measures 33 mm. for the body and 12 mm. for the gills. The latter have their barbules coloured brown in an irregular manner. This species is superficially very like *Potamilla antarctica*, but may be distinguished by the following characters: the collar is lower, the branchiae are spirally coiled and have their tips free from barbules, and the dorsal thoracic "scimitar" bristles are less discoidal than the spatulate bristles of *P. antarctica*.

Genus **Dasychone**, Sars

Dasychone violacea (Schmarda).

Augener, 1918, p. 580.
Non McIntosh, 1885, p. 504, pl. liii, fig. 3; pl. xxxi A, figs. 7–8; pl. xxxix A, fig. 7.
Dasychone foliosa, Ehlers, 1913, p. 572, pl. xlv, figs. 8–16.
Branchiomma violacea, Johansson, 1927, p. 164.

St. 90. 10. vii. 26. Simon's Town, False Bay, South Africa. Basin of H.M. Dockyard. 0–2 m. Gear **NH**. One specimen.

REMARKS. The body measures 12 mm. and the gills 5 mm. The body colour is pale violet and the gills a pale yellow except towards the tips, where there is a suggestion of orange. Each filament has eight eye spots and there is a band of pigment around the gill base. The collar is widely open dorsally and notched in the mid-ventral line and at the sides. The dorsal appendages (stylodes) of the branchiae are as figured by Ehlers (*loc. cit.* figs. 13 and 14).

Dasychone capensis, McIntosh, is not a synonym of this species, but is probably the same as *Dasychone cingulata*, Grube.

I heartily agree with Benham (1927, p. 137) in his refusal to follow Johansson in transferring the generic name *Branchiomma* to *Dasychone*, and in substituting *Megalomma* for *Branchiomma*.

Dasychone natalensis (Kinberg).

Branchiomma natalensis, Johansson, 1927, p. 165, with synonymy.
Dasychone violacea, McIntosh, 1885, p. 504, pl. liii, fig. 3; pl. xxxi A, figs. 7–8; pl. xxxix A, fig. 7.

Saldanha Bay Beach, South Africa, 1926. Four specimens.

Remarks. This species, easily distinguished by the spirally twisted gill bases and the very numerous short gills with their paired foliaceous dorsal appendages is, according to Johansson, the *Sabella natalensis* of Kinberg. The largest specimen measures 82 mm. for the body and 13 mm. for the gills.

Dasychone nigromaculata (Baird).

McIntosh, 1885, p. 503, pl. liii, fig. 5; pl. xxxi A, figs. 4–6; pl. xxxix A, fig. 6.
Branchiomma nigromaculata, Johansson, 1927, p. 162, with synonymy.

St. 1. 16.xi.25. Clarence Bay, Ascension Island. 7° 55′ 15″ S, 14° 25′ 00″ W. 16–27 m. Gear **NRM**. Bottom: coral, sand and shell. Eight specimens.

Remarks. These are all very small specimens measuring about 7 mm. for the body and 4 mm. for the gills. I believe them to be young examples of Baird's species. The body colour is a pale green with eye spots between the rami of the feet. The barbules are splashed with brown. There are only seven gills on each side, and each gill has about five pairs of eyes and six pairs of dorsal stylodes. These are slender and filiform and of unequal size. The bristles and hooks (Fig. 84, *a*) agree with McIntosh's figures, except that the broader sort of thoracic dorsal bristle (Fig. 84, *b*) is more widely winged than as shown by McIntosh. The character of the dorsal branchial stylodes and the shape of the hook seem to be characteristic.

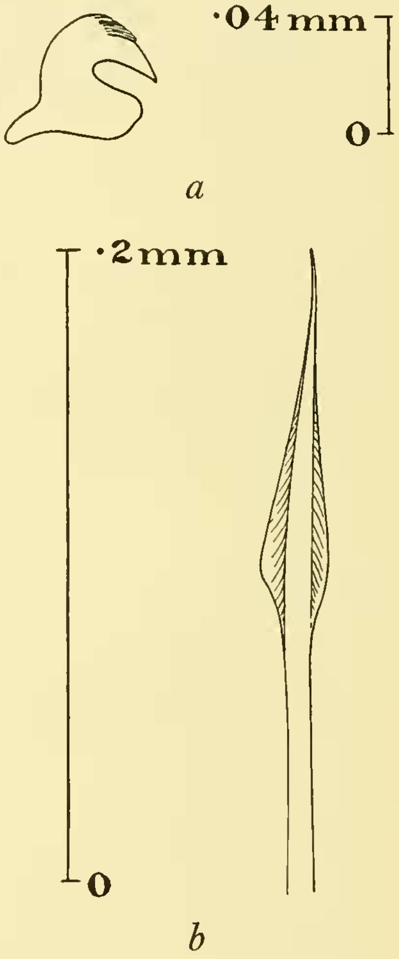

Fig. 84. *Dasychone nigromaculata*. *a*. Thoracic hook. *b*. Broader thoracic bristle.

Genus **Hypsicomus**, Grube

Hypsicomus torquatus (Grube).

Augener, 1918, p. 572, text-fig. 101.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 mile to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. One specimen.

Remarks. This specimen measures 12 mm. for the body and 9 mm. for the gills. Its most conspicuous character is the brown colouring of the abdominal gland shields. The present material does not permit me to add anything to Augener's full account of this species.

Genus **Euratella**, Chamberlin

Euratella puncturata (Augener).

Demonax puncturatus, Augener, 1918, p. 576, pl. vi, figs. 170–171, text-fig. 102.

St. 2. 17. xi. 25. Clarence Bay, Ascension Island, Catherine's Point and Collyer Point. Shore collection, from buoy. Five specimens.

REMARKS. Of these examples only one is complete, and this measures 7 mm. for the body and 3 mm. for the gills. There are only five thoracic chaetigers. The body is slender and flattened ventrally: there are 11 branchial filaments to each branchial lobe. These have about six bands of brown pigment. According to Augener, there are no eyes, but I am inclined to regard the paired pigment spots on the outer surface of the filaments as rudimentary eyes. There is a very distinct pigment band across the branchial lobes. Dorsally there is a pair of pigment spots at the base of the collar, and ventrally a pair below the collar lappets. There is a distinct spot in every segment between the rami of the feet.

The branchial membrane extends for about a quarter of the length of the gills; and, as Augener points out, the rachis of the filaments is thickened in places on its outer surface, suggesting rudimentary dorsal stylodes.

There is a pair of palps equal in length to the branchial membrane. The collar is widely open dorsally, slightly notched at the sides and forms two triangular lappets ventrally. The faecal groove is very indistinct. The bristles and hooks correspond so closely to Augener's description and figures that there is nothing I can add.

Augener attributed this species "mit einiger Reserve" to *Demonax*, Kinberg. On the other hand, Johansson, who has examined Kinberg's Sabellid types, claims that *Demonax* has pickaxe chaetae in the ventral tori of the thorax. It therefore cannot belong to *Demonax*.

With its bristles of two kinds, neither kind spatulate, both in thorax and abdomen, and its avicular hooks unaccompanied by pickaxe chaetae in the thorax, it seems to be generically allied to *Laonome salmacidis*, Claparède (v. Fauvel, 1927, p. 323, fig. 112 *s–x*), which is the type species of Chamberlin's *Euratella*.

In the type species, however, the abdominal capillary bristles differ from those of the present species and are said to occur in the terminal segments only.

Sub-family *FABRICIINAE*

Genus **Euchone**, Malmgren

Euchone pallida, Ehlers.

Ehlers, 1908, p. 159, pl. xxi, figs. 10–15; pl. xxii, figs. 1–4.
Benham, 1927, p. 139, pl. iv, figs. 126–130.

St. 39. 25. iii. 26. East Cumberland Bay, South Georgia. From 8 cables S 81° W of Merton Rock to 1·3 miles N 7° E of Macmahon Rock. 179–235 m. Gear OTL. Bottom: grey mud. Three specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. Fifty specimens.

St. 123. 15. xii. 26. Off mouth of Cumberland Bay, South Georgia. From 4·1 miles N 54° E of Larsen Point to 1·2 miles S 62° W of Merton Rock. 230–250 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 167. 20. ii. 27. Off Signy Island, South Orkneys. 60° 50′ 30″ S, 46° 15′ 00″ W. 244–344 m. Gear **N 4–T**. Bottom: green mud. One specimen.

St. 172. 26. ii. 27. Off Deception Island, South Shetlands. 62° 59′ 00″ S, 60° 28′ 00″ W. 525 m. Gear **DLH**. Bottom: rock. One specimen.

St. 195. 30. iii. 27. Admiralty Bay, King George Island, South Shetlands. 62° 07′ 00″ S, 58° 28′ 30″ W. 391 m. Gear **OTM**. Bottom: mud and stones. One specimen.

St. MS 68. 2. iii. 26. East Cumberland Bay, South Georgia. 1·7 miles S $\frac{1}{2}$ E to 8$\frac{1}{2}$ cables SE × E of Sappho Point. 220–247 m. Gear **NRL**. Two specimens.

Remarks. The largest specimen is that from St. 167 and it measures 63 mm. for the body; the gills are damaged, so that an exact measurement is impracticable, but they appear to have measured about 15 mm. This specimen has 32 abdominal chaetigers, as had Ehlers' original example. The specimen from St. 172 has 26 abdominal chaetigers as had Benham's examples: it measures 20 mm. for the body and about 10 mm. for the gills. On the other hand, the numerous specimens from St. 45 have an average measurement of 25 mm. for the body and 15 mm. for the gills, with only 22 abdominal chaetigers.

The collar is extremely delicate and is apt to present a rather different appearance in different specimens from the same locality. The mid-ventral cleft extends, as Benham says, to the anterior border of the 1st ventral gland shield. Dorsally, the appearance of the collar depends upon the degree of development of the two parallel glandular areas which Benham calls the nuchal gland. In some specimens this gland is not visible. The inner dorsal edges of the collar are fused in their lower part with two lamellae, which are at their ventral edges continuous with the pair of fleshy pads at the base of the branchial lobes. When the nuchal gland is developed, these lamellae are themselves thickened and glandular, and appear as anterior continuations of the nuchal gland. I can confirm Benham's account of the intrabranchial naked filaments, which are, as Fauvel has shown, greatly elongated barbules. The caudal membranes vary greatly in depth and in the extent to which they curve over towards the mid-line.

All the tubes are of the yellow horny kind as described by Benham, except two from St. MS 68, which have mud walls as described by Ehlers. This is puzzling, but on scraping away the mud, a horny substructure, which appears similar to the ordinary horny tubes, is revealed.

I do not believe that more than one species of *Euchone* is represented by these specimens.

Genus Jasmineira, Langerhans

Jasmineira scotti, Benham.

Benham, 1927, p. 131, pl. iii, figs. 100–107.
? *Jasmineira caeca*, Ehlers, 1913, p. 579.

St. WS 33. 21. xii. 26. 54° 59′ 00″ S, 35° 24′ 00″ W. 130 m. Gear N 100 H. Bottom: grey mud and stones. One specimen.

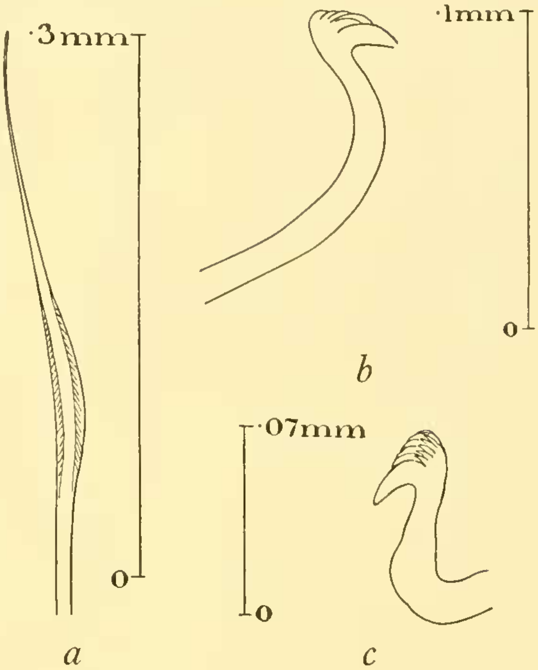

Fig. 85. *Jasmineira scotti*.
a. Winged thoracic bristle. *b*. Thoracic hook. *c*. Abdominal hook.

Remarks. One specimen in poor condition and its tube. The specimen measures 9 mm. for the body and 4 mm. for the gills. There are eight thoracic and fifteen abdominal chaetigers. There are no colour markings. The condition is such that the example can only be doubtfully attributed to a species. There appears to be a membrane extending for about a third the length of the gills: the head region and collar are too much damaged for description. Dorsally there are two large prominent glandular pads, running from the 3rd chaetiger to the base of the head region. I take this to be a nuchal gland, and the dorsal lappets of the collar appear to be fused with it. The thoracic bristles consist of winged (Fig. 85, *a*) and spatulate bristles, and the thoracic hooks (Fig. 85, *b*) have very long downwardly directed manubria and crests of four to five rows of denticles; the abdominal bristles are slender and capillary without borders; the abdominal hooks (Fig. 85, *c*) are avicular with crests of eight rows of teeth.

The chaetae of this specimen agree with Benham's description and figures closely except in one particular: in this specimen, the end of the manubrium of the abdominal hooks turns back sharply at right angles to the rest of the shaft and is not gently curved backwards as it is in Benham's fig. 106.

Ehlers' *J. caeca* from Kerguelen is briefly described without figures, but is probably synonymous with Benham's species. As already said, I can only doubtfully assign the present specimen to a species. The tubes are incrusted with sand grains and small black stones.

Family SERPULIDAE

Sub-family *SERPULINAE*

Genus **Serpula**, Linnaeus

Serpula vermicularis, Linnaeus.

Fauvel, 1927, p. 351, fig. 120 *a–q*.

St. 27. 15. iii. 26. West Cumberland Bay, South Georgia. 3·3 miles S 44° E of Jason Light. 110 m. Gear **DL**. Bottom: mud and rock. Forty specimens.

St. 45. 6. iv. 26. 2·7 miles S 85° E of Jason Light, South Georgia. 238–270 m. Gear **OTL**. Bottom: grey mud. One specimen.

St. 140. 23. xii. 26. Stromness Harbour to Larsen Point, South Georgia. From 54° 02′ S, 36° 38′ W to 54° 11′ 30″ S, 36° 29′ W. 122–136 m. Gear **OTL**. Bottom: green mud and stones. One specimen. Gear **N 4–T**. Three specimens.

St. 146. 8. i. 27. 53° 48′ 00″ S, 35° 37′ 30″ W. 728 m. Gear **DLH**. Bottom: rock. Three specimens.

St. 160. 7. ii. 27. Near Shag Rocks. 53° 43′ 40″ S, 40° 57′ 00″ W. 177 m. Gear **DLH**. Bottom: grey mud, stones and rock. Ten specimens.

St. 190. 24. iii. 27. Bismarck Strait, Palmer Archipelago. 64° 56′ 00″ S, 65° 35′ 00″ W. 93–126 m. Gear **DLH**. Bottom: stones, mud and rock. Two specimens.

St. WS 27. 19. xii. 26. 53° 55′ 00″ S, 38° 01′ 00″ W. 107 m. Gear **N 100 H**. Bottom: gravel. Thirty specimens.

St. WS 77. 12. iii. 27. 51° 01′ 00″ S, 66° 31′ 30″ W. From 51° 00′ 00″ S, 66° 30′ 00″ W to 51° 02′ 00″ S, 66° 33′ 00″ W. 110–113 m. Gear **OTC**. Bottom: coarse dark sand. Six specimens.

St. WS 79. 13. iii. 27. 51° 01′ 30″ S, 64° 59′ 30″ W. From 51° 00′ 00″ S, 65° 00′ 00″ W to 51° 03′ 00″ S, 64° 59′ 00″ W. 132–131 m. Gear **OTC**. Bottom: fine dark sand. Four specimens.

St. WS 92. 8. iv. 27. 51° 58′ 30″ S, 65° 01′ 00″ W. From 52° 00′ 00″ S, 65° 00′ 00″ W to 51° 57′ 00″ S, 65° 02′ 00″ W. 145–143 m. Gear **OTC**. Bottom: fine dark sand and stones. Vermidom with tubes of *Idanthyrsus armatus*.

St. MS 71. 9. iii. 26. East Cumberland Bay, South Georgia. 9¼ cables E × S to 1·2 miles E × S of Sappho Point. 110–60 m. Gear **BTS**. Ten specimens.

Serpula loveni (Kinberg).

Zopyrus loveni, Kinberg, 1857–1910, p. 71, pl. xxvii, fig. 5.

St. WS 128. 10. vi. 27. West side of Gough Island, inshore. 40° 19′ 00″ S, 10° 04′ 00″ W. 120–90 m. Gear **DLH**. Six specimens and numerous tubes.

Description. The average length is 15 mm. There are no colour markings. There are seven thoracic chaetigers. The two branchial lobes have each 14 filaments: these filaments have naked filiform tips. Of these examples four have oval bilaterally symmetrical opercula (Fig. 86, *a* and *b*) and the remaining two radially symmetrical round opercula (Fig. 86, *c*). The peduncle shows a marked constriction below the operculum, which is inserted more or less centrally on its stalk. The number of rays or teeth on the operculum varies between 12 and 24. They are large and well separated by radial

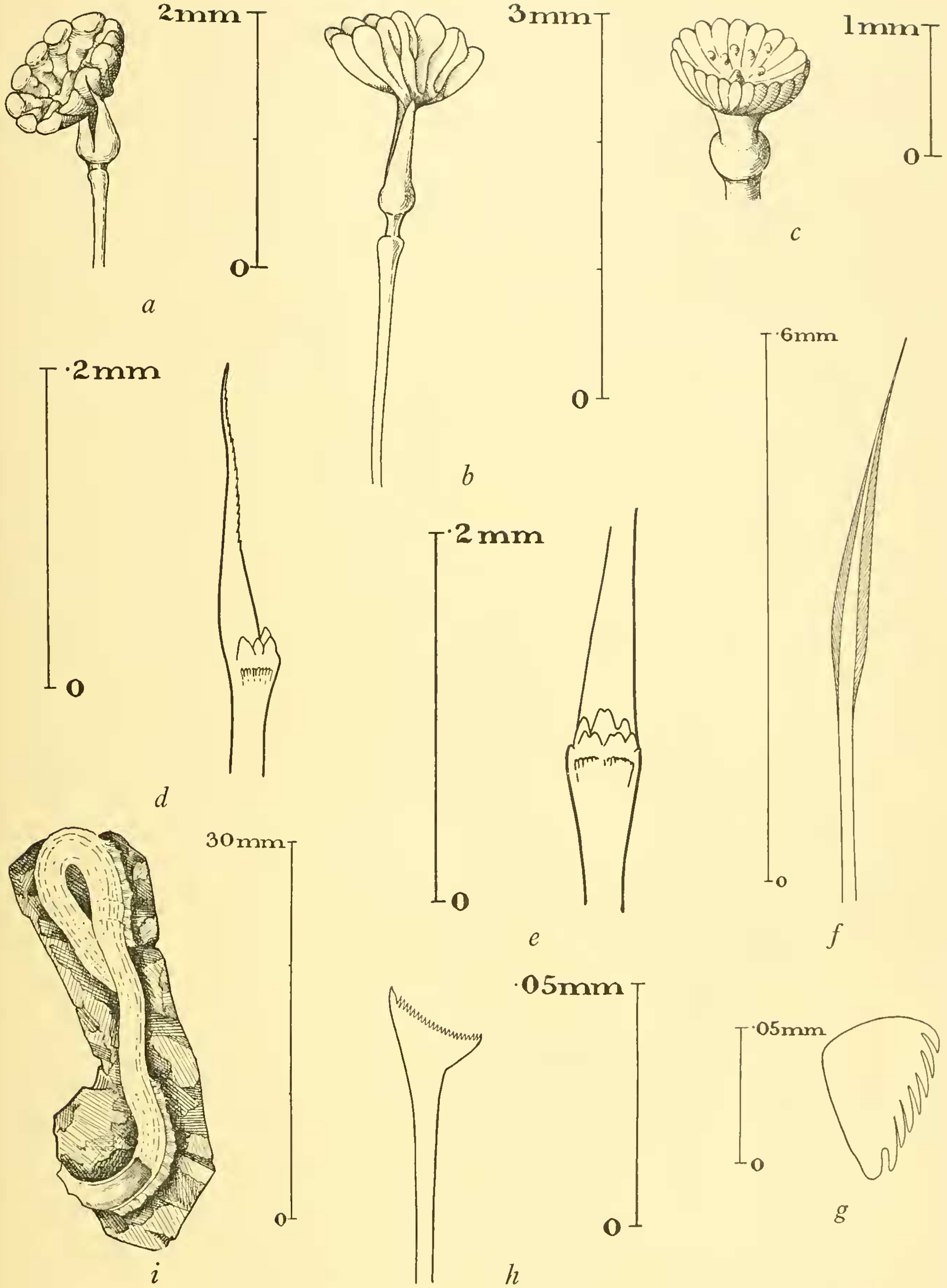

Fig. 86. *Serpula loveni*.

a. Operculum. *b*. Operculum. *c*. Operculum. *d*. Collar bristle. *e*. Collar bristle. *f*. Dorsal thoracic bristle. *g*. Thoracic hook. *h*. Abdominal bristle. *i*. Tube.

furrows. Each ray has on its inside a more or less pronounced eminence, but there are no spines like those in *Hydroides*. There is a club-shaped pseudo-operculum on the opposite branchial lobe to the operculum.

The collar is trilobed with a large folded ventral lobe and two lateral lobes which are fused with the thoracic membrane. The latter is rather macerated, but as far as can be seen, it forms a triangular lappet on the ventral surface behind the thorax.

The collar bristles consist of capillary bristles with delicately denticulated borders and "bayonet" bristles (Fig. 86, *d* and *e*). The teeth at the base of the blade in these are much worn and vary much in appearance according to the angle at which they are seen. Looked at directly from above, there are at the top of the boss three teeth in a line, a large tooth and a smaller tooth on each side: the large tooth begins a little below the other two and is set further away from the shaft. Near the base of the large tooth and forming the second row are two double teeth on each side of the chaetal shaft. Below these again is a row of small denticles.

The remaining dorsal thoracic bristles are bordered capillaries (Fig. 86, *f*). The thoracic hooks (Fig. 86, *g*) are provided with six to seven teeth.

In the abdomen, in addition to the dorsal hooks, there are ventral bristles (Fig. 86, *h*) shaped like compressed cups with denticulated edges. One lateral tooth is more developed than the rest. In the posterior abdominal segments there are long capillary chaetae. The tubes (Fig. 86, *i*) are all fragmentary. They are sinuous, with several low and ill-defined longitudinal ridges, and without distinct peristomes: at their base they coil round in a loose loop-shaped spiral: they are tinged with red.

REMARKS. Kinberg's description and figures of *Zopyrus loveni* are insufficient for its certain recognition. As far as they go, they seem to agree with the present specimens. The present species is very close to *S. lo-biancoi*, Rioja, which differs, however, in a number of details. In *S. lo-biancoi* the operculum is eccentrically inserted on its stalk and does not show the same range of variation as does that of this species. Moreover, the arrangement of the denticles on the spur of the collar bristles and the number of teeth in the thoracic hooks are different.

Genus **Hydroides**, Gunner

Hydroides norvegica (Gunner).

Fauvel, 1927, p. 356, fig. 122 *i–o*.
McIntosh, 1924, p. 50.

St. 91. 8. ix. 26. ·5 mile off Roman Rock, False Bay, South Africa. 35 m. Gear **NRL**. Bottom: sand. One specimen.

REMARKS. McIntosh has recorded this species from the Cape. The present specimen is a typical *norvegica*, except that there are only 10 chitinous rays on the operculum: the northern forms usually have a larger number. The rays have two teeth on each side and are strongly hooked.

Genus Vermiliopsis, Saint-Joseph

Vermiliopsis notialis, n.sp.

St. 148. 9. i. 27. Off Cape Saunders, South Georgia. From 54° 03′ S, 36° 39′ W to 54° 05′ S, 36° 36′ 30″ W. 132–148 m. Gear **OTL**. Bottom: grey mud and stones. Two specimens.

DESCRIPTION. Along and across a Cidarid spine is a number of small Serpulid tubes, in contact all their length with the substratum. They have large peristomes and three parallel toothed crests, recalling those of the Mediterranean *V. multicristata*. Unfortunately I was unable to extract a worm from them in any but a very poor condition. The measurements are about 10 mm. by ·5 mm. Owing to the bad condition I cannot with certainty discover the number of thoracic chaetigers. There are probably seven, the usual number for the genus. I am also unable to give an account of the collar and thoracic membrane. A thoracic membrane is at any rate present. Each branchial lobe (Fig. 87, *a*) has six rather short filaments, which are adherent and have the barbules continued to the tip (Fig. 87, *b*). The opercular peduncle has neither barbules nor wings. The operculum itself (Fig. 87, *c* and *d*) is a vesicular body, surmounted by a long cone ending in one example in a cup-like disk. The cone is covered with long chitinous spines except for a triangular area running up its outer face.

The 1st chaetiger has limbate bristles (Fig. 87, *e*) and fine capillary bristles (Fig. 87, *f*) with a denticulated edge. The remaining thoracic notopodia have similar bristles, and from the 3rd chaetiger backwards a number of *Apomatus* bristles (Fig. 87, *g*) in addition. The thoracic hooks (Fig. 87, *h*) have 10 to 12 teeth of which the basal is far the most prominent: this tooth is not excavated. The abdominal hooks are similar in form, but smaller. The ventral abdominal bristles (Fig. 87, *i*) are geniculate, and in the posterior abdominal segments there are a number of simple capillary bristles (Fig. 87, *k*). I figure a portion of a tube (Fig. 87, *l*).

REMARKS. The description of this species must remain incomplete until the acquisition of more and better material. The operculum with its chitinous spines seems to be characteristic. In fact, under the present system of using rather wide variations in the operculum as generic differentials, it might justify the establishment of a new genus. On the other hand, in all characters except the operculum, the species agrees with *Vermiliopsis*; and the reduplication of Serpulid genera based on differences in the operculum alone is to be deprecated.

Vermiliopsis glandigerus, Gravier.

Gravier, 1908, p. 121, pl. viii, figs. 290–291, text-figs. 476–481.
Augener, 1918, p. 602.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Four specimens.

REMARKS. I believe these examples to be conspecific with the specimens from Annobon attributed to Gravier's species by Augener. The operculum (Fig. 88, *a*) is,

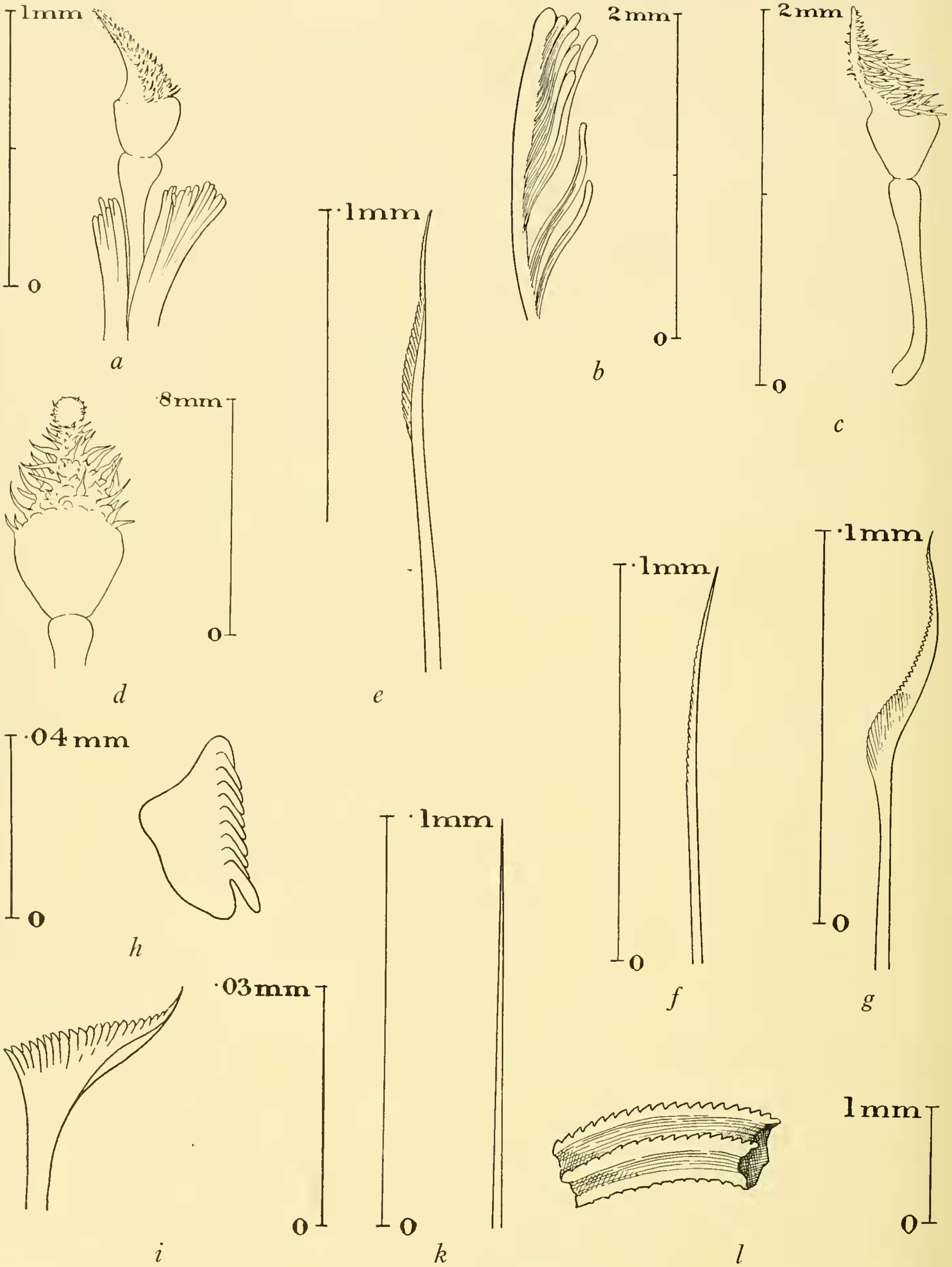

Fig. 87. *Vermiliopsis notialis.*

a. Operculum and gills. *b.* Gill filament. *c.* Operculum. *d.* Operculum. *e.* Bordered bristle. *f.* Capillary bristle. *g.* "Apomatus" bristle. *h.* Thoracic hook. *i.* Geniculate abdominal bristle. *k.* Abdominal capillary bristle. *l.* Portion of a tube.

however, very variable in form, and only one specimen shows the three rings described by Gravier. In two examples the operculum is more like that of *V. infundibulum* than that of *V. glandigerus*. In fact, in the light of the great variability of the operculum, the two species are very hard to separate. The largest specimen measures 30 mm. by 3 mm. across the thorax. The thoracic membrane is fused with the thorax only as far as the 5th chaetiger. The abdominal bristles (Fig. 88, *b*) are closer to that figured by Gravier (text-fig. 481) than to that figured by Fauvel (1927, p. 364, fig. 124*f*) for *V. infundibulum*. I have only a fragment of a tube (Fig. 88, *c*), and this shows successive funnel-like ridges formed by the growth of successive peristomes. I have figured a number of opercula to show the variation.

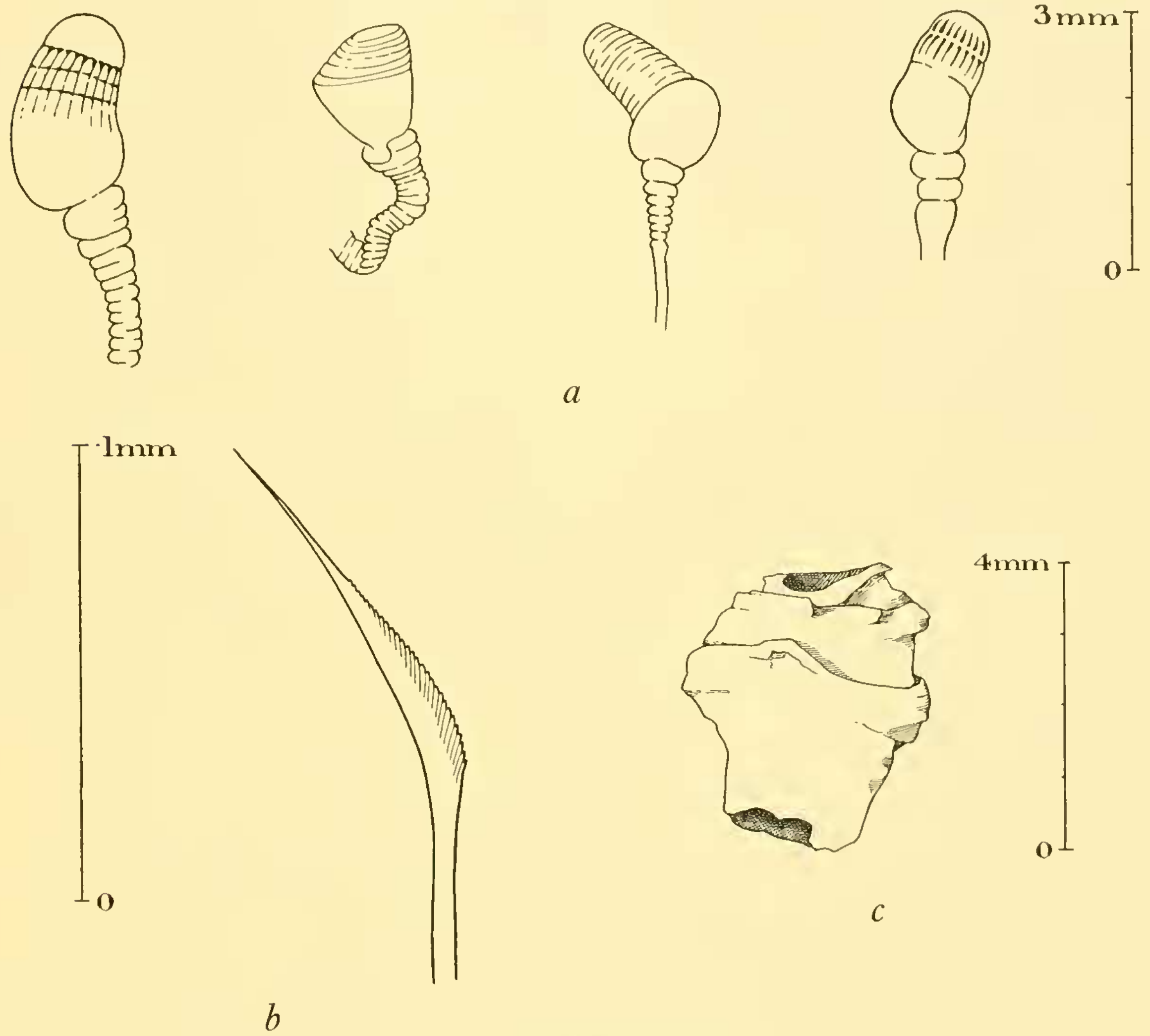

Fig. 88. *Vermiliopsis glandigerus*.

a. Opercula. *b*. Abdominal bristle. *c*. Portion of a tube.

I think it probable that *V. glandigerus*, Gravier, *V. acanthophora*, Augener, and *V. langerhansi*, Fauvel, will all prove to be simple varieties of *V. infundibulum*.

Vermiliopsis richardi, Fauvel, var. fauveli, var. nov.

Vermiliopsis richardi, Fauvel, 1927, p. 366, fig. 126 *a–m*.

St. 283. 14. viii. 27. Off Annobon, Gulf of Guinea. ·75 to 1 mile N 12° E of Pyramid Rock, Annobon. 18–30 m. Gear **DLH**. Three specimens.

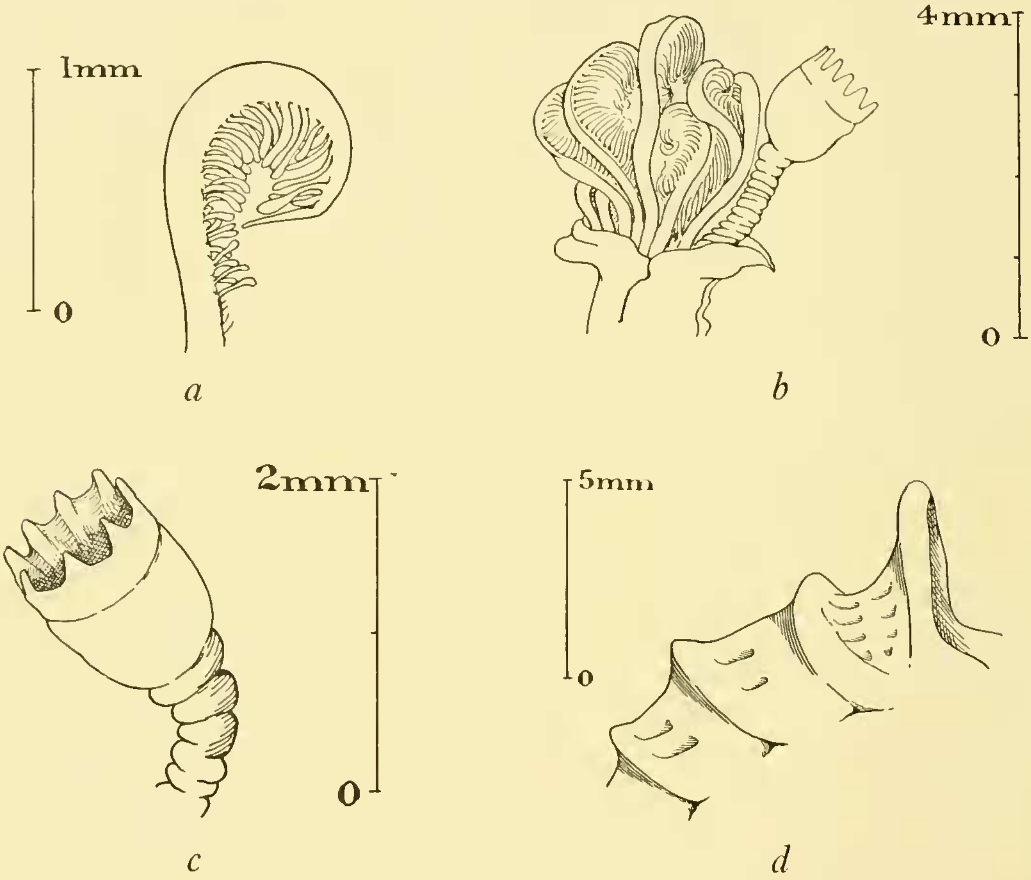

Fig. 89. *Vermiliopsis richardi*, var. *fauveli*.

a. Gill filament. *b*. Anterior end seen from the side. *c*. Operculum. *d*. Tube.

Description. The average measurement is about 15 mm. in length. These specimens correspond in detail with Fauvel's account of his species, except in the following particulars. The extremity of the branchial filaments (Fig. 89, *a*) is not spatulate but filiform, and I can see no eyes on their dorsal surfaces. Moreover, the hooks begin at the 2nd and not the 3rd thoracic chaetiger. Otherwise, in the absence of a branchial membrane, in the presence of a spiral base to the filaments, in the shape of the collar, in the structure of the operculum (Fig. 89, *b* and *c*) and in the character of the bristles, these specimens agree with Fauvel's account. Moreover, the tube (Fig. 89, *d*), with its very wide peristomes and its longitudinal ridges, seems to be similar to that described by Fauvel.

Sub-family *FILOGRANINAE*

Genus Salmacina, Claparède

Salmacina dysteri (Huxley), var. **falklandica**, var. nov.

Salmacina dysteri (Huxley), Fauvel, 1927, p. 377, fig. 129 *c–k*.

St. WS 85. 25. iii. 27. 8 miles S 66° E of Lively Island, East Falkland Island. From 52° 09′ 00″ S, 58° 14′ 00″ W to 52° 08′ 00″ S, 58° 09′ 00″ W. 79 m. Gear OTC. Bottom: sand and shell. Numerous specimens.

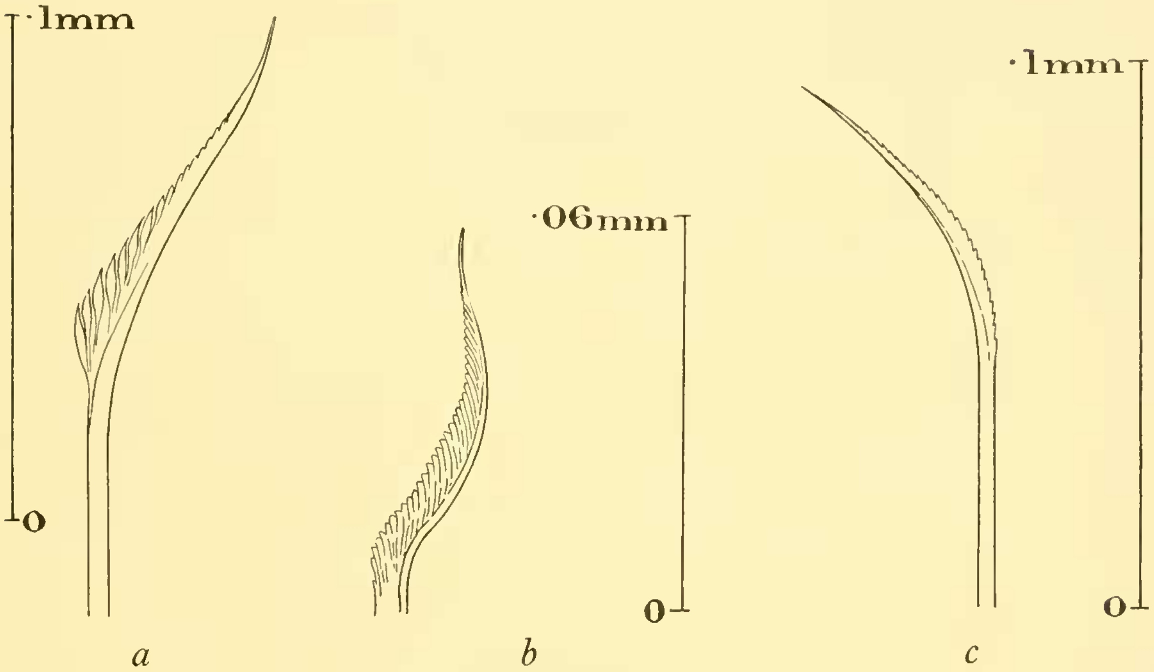

Fig. 90. *Salmacina dysteri*, var. *falklandica*.

a. Collar bristle. *b*. Thoracic sickle bristle. *c*. Abdominal bristle.

Description. A number of delicate, smooth, white tubes, more or less straight and lying flat on several fragments of a calcareous Polyzoan. The contained worms agree with the common *S. dysteri* except in the collar bristles (Fig. 90, *a*), which do not show the typical gap or notch above the toothed spur. In these specimens the teeth are continued without interruption up the blade. Furthermore, the thoracic "sickle" bristles (Fig. 90, *b*) appear to be denticulated, the serrations being real and not due merely to the folding of the concave edge of the blade. There are seven thoracic chaetigers and each branchial lobe has four filaments. The abdominal bristles (Fig. 90, *c*) are geniculate and denticulated.

The bristles of this form differ sufficiently from those of the typical *S. dysteri* to justify the creation of a new variety. They show affinities with the bristles of the Spirorbids.

As far as I know, *S. dysteri* has not been recorded further south than Gough Island.

Sub-family *SPIRORBINAE*

Genus **Spirorbis**, Daudin

Spirorbis, sp. divers.

Remarks. There are in this collection about half a dozen bottles containing examples of *Spirorbis* from various localities. I feel that I am unable to report upon these without undertaking a revision of the whole sub-family, a task which at the moment I cannot attempt.

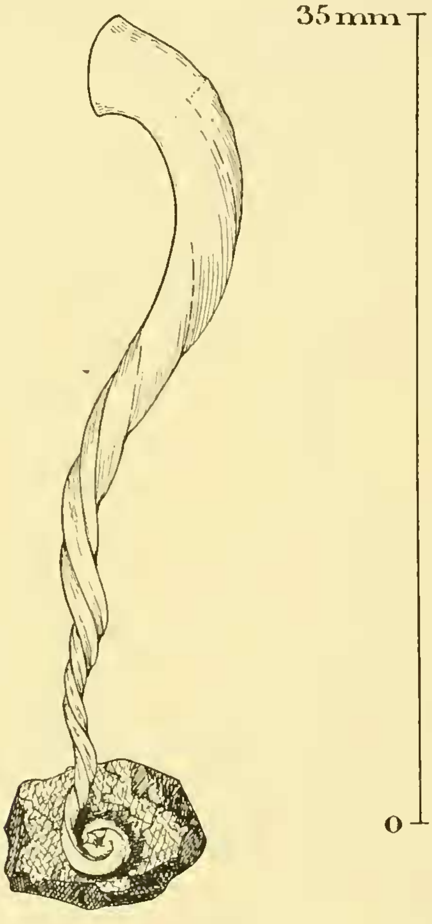

Fig. 91. *Helicosiphon biscoeensis*. Tube.

I should like, however, to point out here that the tube (Fig. 91) of *Helicosiphon biscoeensis*, Gravier (1907, p. 63, Pl. v, figs. 49–52), is not, as Gravier supposed, free. It is attached at its narrow base to the substratum, makes two or three sinistral spiral coils and then turning upwards is solute for the rest of its length. The lower portion of the solute part of the tube is strongly fluted, but this fluting disappears apically.

My examples of Gravier's species are from St. 175, Bransfield Strait, South Shetlands, 63° 17′ 20″ S, 59° 48′ 15″ W. 200 m.

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INDEX

abranchiata, *Onuphis*, 129
abranchiata, var. *antarctica*, *Laena*, 188
abyssorum, *Kesun*, 167
abyssorum, *Leptoecia*, 135
acanthophora, *Vermiliopsis*, 211
afer, *Cirratulus*, 156
affinis, *Flabelligera*, 160
affinis, *Macellicephala*, 47
africana, *Glycera*, 117
africana, *Lumbrinereis*, 136
africana, *Prionospio*, 149
agassizi, *Rhamphobrachium*, 128
alata, *Rhynconerella*, 83
Alciopa, 84
alcyonia, *Eurythoë*, 27
alta, *Aphrodite*, 36
Amage, 180
Ammotrypane, 165
Amphicteis, 183
amphiglypta, *Asychis*, 172
Amphinome, 31
Amphitrite, 189
anderssoni, *Harmothoë*, 57
angelini, *Callizona*, 82
anomalochaeta, *Eulalia*, 76
antarctica, *Antinoë*, 66
antarctica, *Axiothella*, 175
antarctica, *Ephesia*, 115
antarctica, *Leptoecia*, 133
antarctica, *Lumbrinereis*, 138
antarctica, *Polynoë*, 53
antarctica, *Potamilla*, 199
antarctica, *Rhodine*, 170
antarcticus, *Chaetopterus*, 152
antarcticus, *Cirratulus*, 155
antarcticus, *Terebellides*, 198
antillensis, *Eunice*, 121
Antinoë, 63
Aphrodite, 36
Arabella, 142
arctia, *Euphrosyne*, 34
arenivorus, *Polycirrus*, 197
Aricia, 144
armadillo, *Euphrosyne*, 36
armadilloides, *Euphrosyne*, 34
armatus, *Idanthyrsus*, 177
armiger, *Scoloplos*, 145
Artacama, 191
articulata, *Eunice*, 121
Asychis, 172
atlantica, *Eunice*, 119
atlanticus, *Podarmus*, 42
Audouinia, 154
Augeneria, 138
aurantiaca, *Eteone*, 71
Austrophyllum, 74
australis, *Eunice*, 122
australis, *Paramphinome*, 32
Autolytus, 97
Axiothella, 175

bathypelagica, *Sheila*, 43
biscoeensis, *Helicosiphon*, 214
Bispira, 201
bongraini, *Callizona*, 82
bowersi, *Phyllodoce* (*Anaitis*), 72
brachychaeta, *Syllis*, 100
brachycola, *Syllis*, 100
Brada, 161
branchiata, *Lumbrinereis*, 137
breviata, *Ammotrypane*, 165
brevibrachiata, *Rhamphobrachium*, 128
brevis, *Lopadorhynchus*, 78
brevis, *Nicidion*, 123

caerulea, *Arabella*, 142
caliendrum, *Polycirrus*, 196
callaona, *Nereis*, 104
Callizona, 82
candida, *Torrea*, 82
cantrainii, *Alciopa*, 84
capensis, *Dasychone*, 201
capensis, *Euphrosyne*, 34
capensis, *Gunnarea*, 176
capensis, *Pectinaria*, 180
capitata, *Capitella*, 163
capitata, var. *antarctica*, *Capitella*, 164
capitata, *Glycera*, 115
caput-esocis, var *capensis*, *Heterocirrus*, 156
caroli, *Nectochaeta*, 46
carpenteri, *Tomopteris* (*Tomopteris*), 84
caruncul ata, var. *didymobranchiata*, *Hermodice*, 27
catenata, *Axiothella*, 176
cavallii, *Tomopteris* (*Tomopteris*), 87
charcoti, *Austrophyllum*, 74
charcoti, *Autolytus*, 97
chilensis, *Eurythoë*, 28
chilensis, *Nicolea*, 191
Chloeia, 30
chrysoderma, *Cirratulus*, 155
chuni, *Rhamphobrachium*, 128
cincinnatus, *Thelepus*, 192
cingulata, *Dasychone*, 201
Cirratulus, 154
cirratus, *Cirratulus*, 154
clavata, *Grubea*, 99
closterobranchia, *Syllis*, 100
Clymene, 171

Clymenella, 171
coccinea, *Eunice*, 121
coccinea, *Lumbrinereis*, 137
collaris, *Leaena*, 188
communis, *Scalisetosus*, 48
comosa, *Pionosyllis*, 92
complanata, *Eurythoë*, 27
concharum, *Dodecaceria*, 156
congoense, *Pycnoderma*, 162
congoensis, *Goniada*, 118
constricta, *Axiothella*, 176
convoluta, *Glycera*, 117
cornuta, *Sagitella*, 90
corrientis, *Eulagisca*, 48
corrientis, *Pista*, 187
crinita, *Notopygos*, 30
cristata, *Harmothoë* (*Barrukia*), 60
cristata, *Melinna*, 181
crocea, *Phyllocomus*, 181
crosetensis, *Harmothoë*, 57
crosetensis, *Lagisca*, 40
cuprea, *Diopatra*, 124
curviseta, *Harmothoë* (*Barrukia*), 61

Dasychone, 201
decorata, *Maldane*, 169
dendrolepis, *Euthalanessa*, 70
dibranchiata, *Phyllocomus*, 183
Diopatra, 124
diplognathus, *Leocrates*, 92
Dodecaceria, 156
Drilonereis, 142
dubia, *Pygospio*, 146
dumerilii, *Platynereis*, 107
dysteri, var. *falklandica*, *Salmacina*, 213

edentulum, *Nicidion*, 124
edwardsi, *Amphitrite*, 189
egena, *Staurocephalus*, 143
ehlersi, *Rhamphobrachium*, 126
ehlersi, *Terebella*, 185
elegans, *Onuphis*, 132
elegans, *Pygospio*, 146
elisabethae, *Euphione*, 48
elongatus, *Neosabellides*, 183
Ephesia, 115
Epidiopatra, 125
epitoca, *Antinoë*, 67
epitoca, *Tharyx*, 157
eremita, *Onuphis*, 128
eschscholtzi, *Tomopteris* (*Tomopteris*), 86
Eteone, 71
Euchone, 203
Eucrantha, 51
eugeniae, *Nereis*, 104
euglochis, *Chloeia*, 30
Eulagisca, 48
Eulalia, 75
Eunice, 118
Eunoë, 50
Eupanthalis, 69
Euphione, 48
Euphrosyne, 34
Euratella, 203
Eurythoë, 27
Eusyllis, 94
Euthalanessa, 70
exanthema, *Harmothoë*, 57

ferox, *Hermadion*, 40
filigera, var. *capensis*, *Audouinia*, 154
filum, *Drilonereis*, 142
Flabelligera, 160
flava, *Eteone*, 71
forbesii, *Travisia*, 167
formosa, *Vanadis*, 81
fossor, *Sternaspis*, 179
fragilis, *Lumbrinereis*, 138
fulgens, *Rhynconerella*, 83
fusiformis, *Owenia*, 176
fusus, *Kesun*, 168

gemmulifera, *Trypanosyllis*, 97
Genetyllis, 75
gibber, *Autolytus*, 97
gigantea, *Trypanosyllis*, 95
glandigerus, *Vermiliopsis*, 209
Glycera, 115
Goniada, 118
gracilis, *Nicidion*, 123
gracilis, *Paraonis* (*Paraonides*), 150
gracilis, *Rhynconerella*, 83
Greeffia, 82
Grubea, 99
Gunnarea, 176
gunneri, *Amphicteis*, 183
gunneri, var. *antarctica*, *Amphicteis*, 184
gunneri, var. *japonica*, *Amphicteis*, 185

hamiltoni, *Polycirrus*, 194
hardyi, *Nereis* (*Eunereis*), 109
Harmothoë, 54
Hauchiella, 197
Hermadion, 40
Hermodice, 27
hesslei, *Polycirrus*, 195
Heterocirrus, 156
heteropoda, *Lumbrinereis*, 137
hexaphyllum, *Nainereis*, 145
hirsutus, *Stylarioides*, 160
holobranchiata, *Onuphis*, 133
hubrechti, *Lagisca*, 45
hupferi, *Goniada*, 118
hupferiana, *Epidiopatra*, 125
hyalina, *Syllis*, 100
Hydroides, 208
Hypsicomus, 202

Idanthyrsus, 177
impar, var. *notialis*, *Harmothoë* (*Evarnella*), 58

impatiens, Lumbrinereis, 137
incerta, Macellicephala, 47
incisa, Leanira, 70
indica, Eunice, 120
inflatum, Scalibregma, 163
infundibulum, Vermiliopsis, 211
insignis, Polycirrus, 196
intermedia, Rhodine, 170
iricolor, Arabella, 142
iridescens, Onuphis, 132

Jasmineira, 205
Johnstonella, 88

kempi, Tomopteris (*Johnstonella*), 88
kerguelarum, Stylariodes, 159
kerguelensis, Amphitrite, 189
kerguelensis, Clymene, 171
kerguelensis, Eusyllis, 94
kerguelensis, Harmothoë (*Evarnella*), 59
kerguelensis, Lumbrinereis, 136
kerguelensis, Nereis, 103
kerguelensis, Polycirrus, 194
kerguelensis, Scoloplos, 145
kerguelensis, Travisia, 165
kerguelensis, var. *gravieri, Travisia*, 167
Kesun, 167
kinbergii, Nicidion, 123
kowalewskii, Sagitella, 89
krohnii, var. *simplex, Lopadorhynchus*, 79

Laetmonice, 39
laevis, Leptonereis, 109
laevis, Polyeunoa, 51
laevisetis, Eurythoë, 28
Lagisca, 45
langerhansi, Vermiliopsis, 211
Lanicides, 188
lapidum, Glycera, 116
latericeus, Notomastus, 164
Leanira, 70
Leocrates, 92
Lepidonotus, 48
Leptoecia, 133
lineatus, Notomastus, 164
lo-biancoi, Serpula, 208
lobifera, Sagitella, 90
Loimia, 185
longicaudatus, Terebellides, 199
longicirrata, Eunice, 121
longifilis, Syllis, 100
longipes, Phyllodoce, 73
longissima, Vanadis, 79
Lopadorhynchus, 78
loxechini, Leptonereis, 107
loveni, var. *macintoshi, Lysilla*, 197
loveni, Serpula, 206
loveni, Zopyrus, 206
luctator, Flabelligera, 160
lumbricalis, Nicomache, 173
Lumbriclymenella, 170
Lumbrinereis, 135
lyrochaeta, Nephthys, 113
Lysilla, 197

Macellicephala, 47
maclearanus, Autolytus, 99
macrobranchia, Nicolea, 191
macrura, Nephthys, 111
magalhaensis, Bispira, 201
magalhaensis, Eulalia, 75
magalhaensis, Hermadion, 41
magalhaensis, Lumbrinereis, 135
magalhaensis, Nereis, 104
magalhaensis, Platynereis, 106
magellanica, Harmothoë, 54
major, Phyllochaetopterus, 153
Maldane, 169
mammilata, Brada, 162
marginata, Aricia, 144
mawsoni, Scoloplos, 145
maxima, Pionosyllis, 92
medusa, Loimia, 185
megalops, Notopygos, 30
Melinna, 181
michaelseni, Aricia, 144
minor, Clymenella, 171
minutus, Terebellides, 198
mirabilis, Macellicephala, 47
mirabilis, Pista, 186
mollis, Eucrantha, 51
mollis, Eupolynoë, 51
monilifer, Stylarioides, 159
montagui, Loimia, 186
mortenseni, Polyodontes, 69
mülleri, Typhloscolex, 90
mundata, Flabelligera, 161
murrayi, Eunice, 122

Nainereis, 145
nasuta, Callizona, 83
natalensis, Dasychone, 202
natalensis, Sabella, 202
Nectochaeta, 46
neglectus, Staurocephalus, 143
Neoleprea, 188
Neosabellides, 183
Nephthys, 111
Nereis, 103
Nerine, 148
Nicidion, 123
Nicolea, 191
Nicomache, 173
nigromaculata, Dasychone, 202
nisseni, Tomopteris (*Tomopteris*), 87
norvegica, Hydroides, 208
norvegica, Nereis, 120
notialis, Onuphis, 129
notialis, Vermiliopsis, 209
Notomastus, 164
Notopygos, 30

oahuensis, Greeffia, 82
oculata, Phyllodoce, 73
ohlini, Aricia, 144
olens, Travisia, 165
Onuphis, 128
opalina, Eunoë, 50
Orseis, 91
Owenia, 176

pallida, Euchone, 203
pallida, Onuphis, 133
Paramphinome, 32
Paraonis, 150
parva, Chloeia, 30
patagonica, Nereis, 104
patagonica, Phyllodoce, 72
pavonina, Sabella, 199
Pectinaria, 180
pelagica, Antinoë, 63
pelagica, Nereis, 106
pellucidus, Scalisetosus, 48
pennata, Eunice, 118
pennatus, Idanthyrsus, 178
pennigera, Flabelligera, 161
Phyllochaetopterus, 153
Phyllocomus, 181
Phyllodoce, 72
picta, Eulalia, 78
pictus, Phyllochaetopterus, 154
pinnata, Drilonereis, 143
pinnata, Prionospio, 150
Pionosyllis, 92
Pista, 186
planktonis, Tomopteris, 85
plumosa, Stylarioides, 159
Podarmus, 42
Polycirrus, 194
Polyeunoa, 51
Polynoë, 53
Polyodontes, 69
polyphylla, Genetyllis, 75
Potamilla, 199
Prionospio, 149
proboscidea, Artacama, 191
producta, Laetmonice, 39
prolixa, Syllis, 100
pulchella, Paramphinome, 34
punctifera, Diopatra, 124
pycnocera, Rhynconerella, 82
Pycnoderma, 162
Pygospio, 146

quadricuspis, Onuphis, 131
quadrimaculata, Axiothella, 176
quadrioculata, Alciopa, 84

Rhamphobrachium, 126
Rhodine, 170
rhopalophora, Grubea, 99
Rhynconerella, 83
richardi, var. *fauveli, Vermiliopis*, 212
robusta, Lumbriclymenella, 170
rouchi, Hermadion, 40
rousseaui, Eunice, 122
rubella, Eteone, 71
rubrovittatus, Staurocephalus, 143
rudolphii, Staurocephalus, 143

Sabella, 199
Sagitella, 89
salmacidis, Laonome, 203
Salmacina, 213
sarsi, Amphicteis, 184
sarsi, var. *antarctica, Maldane*, 169
savignyi, Eunice, 120
Scalibregma, 163
Scalisetosus, 48
sclerolaema, Syllis, 102
Scoloplos, 145
scotti, Jasmineira, 205
sculpta, Amage, 180
sculpta, Eteone, 71
scutata, Sternaspis, 178
scutata, var. *africana, Sternaspis*, 179
semitectus, Lepidonotus, 48
septentrionalis, Tomopteris (*Tomopteris*), 86
Serpula, 206
setobarba, Antinoë, 65
setosus, Thelepus, 193
serratifolia, Nephthys, 114
sexoculata, Prionospio, 150
Sheila, 43
siciliensis, Eunice, 120
simplex, Autolytus, 97
socialis, Phyllochaetopterus, 153
spinosa, Harmothoë, 55
spinosa, var. *lagiscoides, Harmothoë*, 57
Spirorbis, 214
Staurocephalus, 143
Sternaspis, 178
streptochaeta, Neoleprea, 188
Stylarioides, 159
subulifera, Eulalia, 78
swakopianus, Stylariodes, 159
Syllis, 100
symbranchiata, Pista, 187

tentaculata, Augeneria, 140
Terebella, 185
Terebellides, 198
tesselata, Glycera, 117
tetraura, Lumbrinereis, 137
Tharyx, 157
Thelepus, 192
Tomopteris, 84
torquatus, Hypsicomus, 202
Torrea, 82
Travisia, 165
tribullata, Hauchiella, 197
tridactyla, Glycera, 117

Trypanosyllis, 95
tubifex, *Eupanthalis*, 69
typhla, *Nereis*, 105
Typhloscolex, 90

vagans, *Amphinome*, 31
Vanadis, 81
variegata, *Syllis*, 101
variopedatus, *Chaetopterus*, 152
vayssieri, *Lanicides*, 188
vermicularis, *Serpula*, 206
Vermiliopsis, 209
villosa, *Brada*, 161
violacea, *Dasychone*, 201
viridis, *Chloeia*, 30
viridis, *Eulalia*, 76
vittata, *Ceratonereis*, 111
vittata, *Eunice*, 120

wyvillei, *Amphicteis*, 184

xanthotricha, *Stylarioides*, 159

yungi, *Clymene* (*Isocirrus*), 171